COPYRIGHT ACCIDENTS

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INTRODUCTION

Palgrave Macmillan is a highly respected international publisher of academic texts. But strangely, many of their books start with an apology. Open one of their recently published books and within the first pages you are likely to find the following statement: "While every care has been taken to trace and acknowledge copyright, the publishers tender their apologies for any accidental infringement where copyright has proved untraceable."[1] In theory, Palgrave should always obtain permission before printing copyrighted material, but in practice this is difficult. Frequently they wish to use some expressive material, but it is not clear who owns the rights or even if the work is protected by copyright at all. In these cases, they take "every care" to get the permission and avoid infringement but still sometimes accidents happen and they mistakenly print copyrighted material without authorization. Because copyright holds them responsible for these accidents regardless of how much they tried to prevent them, they offer this boilerplate apology up front. But this raises the question: *Should* they be legally responsible for all of these accidental infringements? The usual rule in tort law is you are only liable for accidents if you were negligent.[2] Run someone over in your car and break their neck, spill toxic waste in a town center,[3] or let your dog bite a neighbor, and you are only liable if you failed to take "reasonable care" to prevent the accident. So what's so different about copyright accidents?

Copyright accidents are a ubiquitous and largely ignored problem.[4] In all areas of social life accidents are an enduring and ever-present feature. Frequently we engage in beneficial activities, which, as a byproduct, pose a risk of harm to others around us. Sometimes that risk materializes into a reality

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[1] *E.g.*, RALPH HALL, APPLIED SOCIAL RESEARCH: PLANNING, DESIGNING AND CONDUCTING REAL-WORLD RESEARCH, at iv (2008); DAVID KIRK ET AL., THE SOCIOCULTURAL FOUNDATIONS OF HUMAN MOVEMENT, at vii (1996); SOTIRIOS SARANTAKOS, SOCIAL RESEARCH, at xxiii (4th ed. 2013); *see also* PENNIE STOYLES & PETER PENTLAND, THE A TO Z OF INVENTIONS AND INVENTORS 2 (2006) (using similar language). Other publishers often adopt the same language. *See, e.g.*, STEVEN A. FRIEZE, PERSONAL INSOLVENCY: LAW IN PRACTICE, at iv (2004) (using similar language); JOHN T. MUGAMBWA ET AL., COMMERCIAL AND BUSINESS ORGANISATIONS LAW IN PAPUA NEW GUINEA, at xi (2007) (using this language).

[2] *See* Brown v. Kendall, 60 Mass. (6 Cush.) 292, 295-96 (1850); *see also* 2 DAN B. DOBBS ET AL., THE LAW OF TORTS § 437, at 842 (2011); JOHN C.P. GOLDBERG & BENJAMIN C. ZIPURSKY, THE OXFORD INTRODUCTIONS TO U.S. LAW: TORTS 265-66 (2010) (stating strict liability exists at "the margins of tort" and is applicable in "a few special situations").

[3] Ind. Harbor Belt R.R. v. Am. Cyanamid Co., 916 F.2d 1174 (7th Cir. 1990).

[4] *See, e.g.*, Stephen E. Margolis, *Law and Economics of Copyright Remedies*, *in* HANDBOOK ON THE ECONOMICS OF COPYRIGHT 241, 246 (Richard Watt ed., 2014) ("One explanation for the punitive elements of copyright law is that copyright infringement is seldom accidental.").

and others are injured, although we did not mean for that to happen.[5] For example, driving is a beneficial activity that is on balance good for society. But every time an individual gets behind the wheel of a car, there is a risk that she may crash into someone else and thus cause harm. Copyright is no different. Creating and distributing original expression benefits everyone, but it often comes with risk of infringing upon another's copyright and harming their economic interests. Consider for example the documentary filmmaker who finds an old photograph. She wishes to use the photograph in her new film, but the photograph has no copyright information on it.[6] At this point, she is aware that using the photograph comes with a risk that it may infringe the copyright of another. If she goes ahead with the use, perhaps that risk will materialize and an aggrieved copyright owner will later appear. Alternatively, consider the computer programmer who incorporates into her program code that has been publicly licensed on open terms. Later it is discovered that the open-source code had become "tainted" with the copyrighted code of another and, by copying the open-source code, the programmer accidentally infringed the prior owner's right.[7] Or finally, think of a library that wishes to digitize a work in its collection but cannot tell whether it is still under copyright.[8] In all of these cases we find someone who makes a socially beneficial use of an expressive work but creates a risk of infringement. The user does not intend to infringe copyright, but there is a probability that she might. As with all cases of accidental harm, the question for policy makers is: Who should bear the cost of the accident?[9] Should it be the person who unintentionally caused it? Or should it be the victim? In copyright, should it be the user or the owner who bears the harm?

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[5] STEVEN SHAVELL, ECONOMIC ANALYSIS OF ACCIDENT LAW 1 (1987) ("[B]y 'accidents' I mean harmful outcomes that neither injurers nor victims wished to occur—although either might have affected the likelihood or severity of the outcomes.").

[6] *See, e.g.*, Int'l Documentary Ass'n & Film Indep., Comment Letter on the Matter of Orphan Works and Mass Digitization 38 (May 21, 2014), http://copyright.gov/orphan/comments/Docket2012_12/International-Documentary-Association%28IDA%29-Film-Independent%28FIND%29.pdf [https://perma.cc/8YNA-23TY]; PATRICIA AUFDERHEIDE & PETER JASZI, RECLAIMING FAIR USE: HOW TO PUT BALANCE BACK IN COPYRIGHT 95 (2011) (stating that "including copyrighted material accidently or incidentally in a documentary scene" was "the most galling of the copyright problems" faced by documentary filmmakers).

[7] *See generally* First Amended Complaint and Jury Demand, SCO Grp., Inc. v. Autozone, Inc., No. 2:04-CV-237-RCJ-(GWF) (D. Nev. Aug. 14, 2009), 2009 WL 4834467.

[8] *See, e.g.*, Authors Guild, Inc. v. Hathitrust, 755 F.3d 87 (2d Cir. 2014).

[9] OLIVER WENDELL HOLMES, JR., THE COMMON LAW 95-96 (1881) (stating the "general principle of our law is that losses from accident must lie where it falls" and this can only be changed where there are policy reasons for doing so).

Copyright law has so far responded to accidents through a rule of strict liability.[10] It does not matter how much care you take to prevent the accidental infringement; if you end up transgressing upon copyright entitlements, you will be held liable. Why is this so? A common answer is that copyright is a form of property right and, because property rights are vindicated against violation regardless of fault, the same should hold true in copyright.[11] But this is no answer at all. Copyright has no nature except the one Congress and the courts give it. Whether copyright infringement should require fault or not is a normative question. Answering it requires a serious normative analysis, not empty invocations about the nature of copyright. Other common justifications of copyright's strict liability are hardly satisfying.[12] Although strict liability has been a deeply seated dogma of copyright for over a century, it has not always been so. Prior to the late nineteenth century copyright did in fact incorporate fault elements.[13] Not only was fault a precondition for liability in some instances, but also a number of safeguards—such as formalities and a narrow scope of the right—were in place to make accidental infringement a rare occasion.[14] Paradoxically, these fault elements were phased out in the second half of the nineteenth century, just as fault was becoming a fundamental element in tort law generally.[15] This happened in a context of a highly conceptualist property thought and under the influence of dominant treatise writers steeped in an understanding of copyright as an absolutist property

[10] *See, e.g.*, Buck v. Jewell-LaSalle Realty Co., 283 U.S. 191, 198 (1931); Shapiro, Bernstein & Co. v. H.L. Green Co., 316 F.2d 304, 308 (2d Cir. 1963); De Acosta v. Brown, 146 F.2d 408, 411 (2d Cir. 1944).

[11] *See, e.g.*, Gener-Villar v. Adcom Grp., Inc., 509 F. Supp. 2d 117, 125 (D.P.R. 2007); Plymouth Music Co. v. Magnus Organ Corp., 456 F. Supp. 676, 680 (S.D.N.Y. 1978); 4 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 13.08 (2015); Kent Sinclair, Jr., Comment, *Liability for Copyright Infringement—Handling Innocence in a Strict-Liability Context*, 58 CALIF. L. REV. 940, 945 (1970) ("The concept of absolute liability . . . appears to have stemmed from the early view that no property was more emphatically a man's own than his literary works, and that therefore they must be afforded legal protection to the same extent as his real or personal property." (footnote omitted)).

[12] *See* Dane S. Ciolino & Erin A. Donelon, *Questioning Strict Liability in Copyright*, 54 RUTGERS L. REV. 351, 353-54 (2002); Jacqueline D. Lipton, *Cyberspace, Exceptionalism, and Innocent Copyright Infringement*, VAND. J. ENT. & TECH. L. 767, 775-84 (2011).

[13] *See* Ciolino & Donelon, *supra* note 12, at 359-62; R. Anthony Reese, *Innocent Infringement in U.S. Copyright Law: A History*, 30 COLUM. J.L. & ARTS 133, 133-34 (2007).

[14] Reese, *supra* note 13, at 145, 135-75.

[15] On the rise of fault in tort, see 1 DOBBS ET AL., *supra* note 2, § 123 (describing the history from 1850 to present); GOLDBERG & ZIPURSKY, *supra* note 2, at 14-18; MORTON J. HORWITZ, THE TRANSFORMATION OF AMERICAN LAW, 1780-1860, at 97-101 (1977); Robert L. Rabin, *The Historical Development of the Fault Principle: A Reinterpretation*, 15 GA. L. REV. 925, 926 (1981).

right.[16] These trends are hardly popular today, but the dogma they created remains.[17]

It is time to revisit this entrenched dogma of copyright. This Article questions whether strict liability is the appropriate liability rule for copyright accidents and what its alternatives might be. By identifying copyright accidents as a unique category, it turns the spotlight to a group of cases possessing distinctive features that merit special theoretical and doctrinal treatment. This framing also highlights the structural similarity between copyright accidents and their much more famous cousins: accidents governed by the law of tort. Tort law has a series of well-developed theoretical and doctrinal tools for dealing with such accidents.[18] In this Article we apply these tools, *mutatis mutandis*, to copyright accidents. We highlight the unique features of copyright accidents, evaluate which liability rule should apply to them, examine the doctrinal alternatives for applying the preferred liability rule, and demonstrate how appropriately modified copyright doctrine would work well in practice.

The Article argues that copyright accidents should be governed by a negligence principle. Comparing the available liability rules in several dimensions, we find that negligence is the superior alternative. The primary advantage of negligence is providing both copyright owners and users optimal incentives to invest in precautionary measures to prevent the infringement. Consequently, as in most tort accidents, the negligence rule is the most efficient way to reduce the social cost of copyright accidents. Furthermore, shifting the normative lens from efficiency to a principle of equitable distribution of cultural risk, we find that a negligence rule would enable broader and more equal access to opportunities for cultural expression. Given these benefits, we propose that a negligence test should be embedded into the fair use doctrine. In cases of accidental infringement, a use that otherwise would be infringing should be fair if the defendant can show she took all reasonable precautions to prevent the infringement. Through examples we demonstrate precisely how this modified fair use doctrine would apply to alleviate several systemic problems in copyright policy.

We undertake this inquiry in three parts. Part I introduces the concept of a copyright accident and explores the similarities between it and tort's law of

[16] *See, e.g.*, Sinclair, *supra* note 11, at 945. On nineteenth century conceptualist property thought, see HORWITZ, *supra* note 15, at 31-62. On the influence of natural property rights theory on the copyright treatise writers, see Oren Bracha, *The Statute of Anne: An American Mythology*, 47 HOUS. L. REV. 877, 913-16 (2010).

[17] *See* Bracha, *supra* note 16, at 918 ("For the writers of those treatises, that paradigm was still linked to the grand theoretical and historical narrative of copyright as a property right. . . . But during the twentieth century, that narrative fell into disuse and was gradually cast aside—a crutch no longer necessary for supporting the ownership of intellectual works paradigm it helped to construct.").

[18] *See, e.g.*, MARK A. GEISTFELD, TORT LAW: ESSENTIALS 49-80 (2008); SHAVELL, *supra* note 5.

accidents. Part II examines what is the liability rule most appropriate for copyright accidents. After comparing strict liability with several variants of negligence, it concludes that simple negligence is the optimal rule from perspectives of both efficiency and equitable distribution of risk. Part III analyzes how a negligence principle should be applied in copyright doctrine. Comparing several alternatives, it finds that the preferable option is to modify the existing fair use doctrine to incorporate negligence. The Part concludes by demonstrating how the modified fair use doctrine would apply to specific cases of copyright accidents. Each of the cases represents a more general policy difficulty in copyright law, and the discussion demonstrates how the negligence principle embodied in the proposed doctrine can alleviate these difficulties. The specific policy issues are those of orphan works, copyright triangles, and opt-out options.

I. COPYRIGHT ACCIDENTS

Should copyright have a fault element as a precondition for liability? Before answering this question, a few clarifications are in order. First, our usage of the term fault must be specified. Fault is a slippery concept with many possible meanings. A common broad understanding of fault in tort is as an element of blameworthiness necessary for liability in addition to engaging in a proscribed conduct and causing harm.[19] Under this usage, strict liability torts require only that the defendant engaged in a proscribed conduct and, in some cases, that this conduct caused harm to the plaintiff.[20] Under fault-based torts, by contrast, engaging in a proscribed conduct even if it causes harm is insufficient to give rise to liability. Such torts require an additional element: that the defendant's conduct was blameworthy under some standard applied to the specific circumstances of the case.[21] Under such a capacious definition of fault, copyright could be easily described as fault-based, as several commentators, including one of us, have argued.[22] To establish copyright infringement, it is

[19] JULES L. COLEMAN, RISKS AND WRONGS 212 (1st ed. 1992).

[20] PETER CANE, RESPONSIBILITY IN LAW AND MORALITY 82 (2002); COLEMAN, *supra* note 19, at 212.

[21] *See, e.g.*, COLEMAN, *supra* note 19.

[22] *See* Patrick R. Goold, *Is Copyright Infringement a Strict Liability Tort?*, 30 BERKELEY TECH. L.J. 305 (2015); Wendy J. Gordon, *The Concept of "Harm" in Copyright*, *in* INTELLECTUAL PROPERTY AND THE COMMON LAW 452 (Shyamkrishna Balganesh ed., 2013); Steven Hetcher, *The Fault Liability Standard in Copyright*, *in* INTELLECTUAL PROPERTY AND THE COMMON LAW, *supra*, at 431 [hereinafter Hetcher, *Fault Liability Standard*]; Steven Hetcher, *The Immorality of Strict Liability in Copyright*, 17 MARQ. INTELL. PROP. L. REV. 1, 2 (2013) [hereinafter Hetcher, *Immorality*]; *cf.* Shyamkrishna Balganesh, *The Normativity of Copying in Copyright Law*, 62 DUKE L.J. 203, 206 (2012) (discussing how the substantial-similarity doctrine and legal element of copying ensure that plaintiffs must show more than mere copying as a factual matter).

insufficient to show that the defendant copied from a protected work or even that his copying harmed the copyright owner. Copyright infringement requires in addition that the defendant's actions fail some evaluative standards applied to the circumstances of the case, the two most important ones of which are the fair use standard[23] and the requirement that the copying constitutes substantial similarity.[24] Copying, even harmful copying, is not infringement unless it rises to the level of substantial similarity and fails to be fair use. Given these additional elements, copyright, as it exists today, seems to fit the broad definition of a fault-based cause of action.

We are concerned here, however, with a more specific meaning of the term fault. The fault standard we are focused on takes into account in its normative evaluation of the defendant's action the fact that at the time of acting, the conduct involved only a probability—not a certainty—of engaging in a proscribed conduct or causing harm. In other words, we are interested in a fault standard that gives due weight to the factor of risk. We are interested in this specific brand of fault because our focus is on copyright accidents—situations that, by definition, involve only ex ante risk of a copyright injury.[25] Existing copyright does not already include a fault standard in this more concrete sense. As a rule, under current law an infringing act is not treated differently just because ex ante the defendant's conduct involved only a risk of infringement. Existing copyright doctrines could be adjusted to take account of considerations of risk, but as they are conventionally applied today they do not.[26]

More specifically, our focus is on a negligence fault standard. Under a negligence standard the defendant's conduct is evaluated for whether it lives up to an objectively defined criterion of reasonable conduct.[27] This objective evaluation of the reasonableness of the defendant's conduct is usually understood as comparing or balancing the costs and benefits of defendant's actions.[28] For the reasons just explained, our interest is in a negligence

[23] *See* 17 U.S.C. § 107 (2012).

[24] NIMMER & NIMMER, *supra* note 11, § 13.03[A].

[25] *See infra* Sections I.A, I.B.

[26] Indeed, we argue below that one major way of implementing a negligence standard in copyright accident cases is incorporating the fault inquiry into the fair use analysis. *See infra* Section II.B.

[27] *See* PETER CANE, THE ANATOMY OF TORT LAW 36 (1997); COLEMAN, *supra* note 19, at 332.

[28] The most famous example of which can be found in *United States v. Carroll Towing Co.*, 159 F.2d 169, 173 (2d Cir. 1947). *See also* Richard A. Posner, *A Theory of Negligence*, 1 J. LEGAL STUD. 29, 32 (1972). We do not mean to imply that a nonconsequentialist theory of negligence is impossible. But even deontological scholars have noted that negligence is usually discussed in terms of balancing of competing effects. *See, e.g.*, Heidi M. Hurd, *The Deontology of Negligence*, 76 B.U. L. REV. 249, 249 (1996) ("It should be a great puzzle to those who consider themselves deontologists that the concept of negligence is most often,

standard that, in balancing these costs and benefits, gives due weight to the fact that at the time of her actions the defendant's conduct entailed only a risk of harm. There are other fault standards in tort, such as intention or recklessness.[29] Indeed, the peripheral areas of copyright law that involve explicitly articulated fault requirements include standards that seem closer to these other alternatives than to negligence. Criminal copyright liability requires willfulness[30] and the range of statutory damages varies on the basis of the infringement being willful or innocent.[31] We do not mean to rule out the desirability of applying such alternative fault standards in certain contexts of copyright infringement. Justifying a fault standard requires an articulation of a normative rationale for the standard and for its applicability to the case at point. We undertake this inquiry in regard to cases of copyright accidents where negligence seems the most appropriate standard. We leave the evaluation of other fault standards in other contexts for another day.[32]

A. *The Accident Law Paradigm*

Recall the example in the introduction of a computer programmer who unknowingly copies substantial parts of copyrighted code. Assume that under ordinary circumstances such copying should be deemed infringing. That is, assume that copyright in computer programs is generally justified, that what was copied was substantial enough to pass the infringement test applied by courts to computer programs[33] and that the copying is not otherwise fair use.[34] Given these assumptions, if the programmer simply knowingly copied the code, aware of a high probability that the code is under copyright and that the

and certainly most clearly, defined in the moral language common to consequentialists."); *see also* George P. Fletcher, *Fairness and Utility in Tort Theory*, 85 HARV. L. REV. 537 (1972) (associating the "paradigm of reasonableness" with the dominant instrumentalist and utilitarian philosophy in U.S. tort scholarship).

[29] The common distinction is between state of mind fault standards, which require the defendant to have a specific subjective attitude toward his harmful conduct, and standard of conduct fault, which requires that the defendant's behavior fail an objective evaluative criterion, irrespective of his state of mind. Negligence is the prime example of the latter, while intention and recklessness are usually classified as members of the former group. *See* CANE, *supra* note 27, at 36.

[30] *See* 17 U.S.C. § 506(a) (2012).

[31] *See id.* § 504(c)(2).

[32] Some commentators have argued for an intentional fault standard in copyright. *See, e.g.*, Ciolino & Donelon, *supra* note 12, at 420-21; Lipton, *supra* note 12, at 801-08; *see also* Eva E. Subotnik, *Intent in Fair Use*, 18 LEWIS & CLARK L. REV. 935 (2014).

[33] *See* 17 U.S.C. § 102(b); Comput. Assocs. Int'l, Inc. v. Altai, Inc., 982 F.2d 693, 707-09 (2d Cir. 1992) (considering the necessity and efficiency of particular programming instructions coding in their infringement analysis).

[34] *See* Sega Enters. Ltd. v. Accolade, Inc., 977 F.2d 1510, 1520-28 (9th Cir. 1992); *see also* Sony Comput. Entm't, Inc. v. Connectix Corp., 203 F.3d 596, 602-08 (9th Cir. 2000).

owner is unlikely to permit the use, then it would be easy to agree that she had committed an infringement.

However, our case is not an ordinary one. In our example the programmer was not aware that she was engaged in unauthorized copying of a copyrighted work. There are many ways in which one could copy unknowingly. In our example the defendant copied code that is "tainted" by the proprietary code of another. The copied code was made available to the public by *A* its creator under a general license allowing copying and use as long as certain minimal conditions are met. Incorporated into this code, however, were substantial parts of another copyrighted program written by *B*, who never agreed to this copying or to further copying by others. Our programmer thus did not only knowingly and permissibly copy *A*'s code, but also unknowingly and impermissibly copied *B*'s code. Existing copyright law treats such copying by derivation the same as any other copying, and therefore it seems that the original conclusion does not change—our programmer should still be deemed an infringer.[35] But something has changed. Our example is different from a typical knowing infringement case because, from the point of view of the programmer, her actions created only a *risk* of infringement. To be sure, a reasonable person engaged in copying of publicly licensed code should know that there is some probability that the code is "contaminated" with proprietary unlicensed code. She should know, in other words, that her action creates a risk of infringement. As long as the probability of the occurrence of the infringement is not so high as to practically approach certainty, however, the programmer's action only creates a *risk*. That it later turns out that the risk materialized and an unlicensed copying had occurred does not change the fact that ex ante, as far as the programmer knew or should have known, her action entailed only a risk. This is a paradigmatic case of a copyright accident.

How should such copyright accidents be dealt with? Should the legal treatment of otherwise infringing activities be any different when ex ante the relevant action entails only a risk of infringement? One familiar response is that no special legal treatment of such cases is necessary because voluntary exchanges will adequately dispose of the problem of optimal risk allocation. According to this view, the role of copyright law (as of other property regimes) is to adequately allocate entitlements to copyright owners and ensure that the entitlements are clear and easily applicable as to facilitate transactions between

[35] *See* NIMMER & NIMMER, *supra* note 11, § 13.08[A]; 3 WILLIAM F. PATRY, PATRY ON COPYRIGHT § 9.68 (2015) ("[A] defendant who copied from a third party which itself copied from a plaintiff is liable . . . ."); *see also, e.g.*, Lipton v. Nature Co., 71 F.3d 464, 471 (2d Cir. 1995); Costello Publ'g Co. v. Rotelle, 670 F.2d 1035, 1044 (D.C. Cir. 1981); Pye v. Mitchell, 574 F.2d 476, 481 (9th Cir. 1978); De Acosta v. Brown, 146 F.2d 408, 411 (2d Cir. 1944).

such owners and others.[36] Those who wish to engage in activities within the owner's exclusive rights can negotiate voluntary transactions with them. In principle, the same wisdom applies to activities that impose a risk of copyright infringement. Those who wish to engage in such risk-inducing activities can enter voluntary transactions with copyright owners in order to optimally allocate the risk they create.

Recently, Avihay Dorfman and Assaf Jacob have eloquently explained why this response is inadequate in the context of copyright.[37] The domain of copyright, they argue, is much closer to "accident law" than to the "paradigm of trespass."[38] This is so because in the domain of copyright, as in the former and unlike the latter, in many cases transaction costs of voluntary transactions between owners and others will be very high. As a result, simply creating clear entitlements that are infringed upon any voluntary transgression and relying on market transactions for their transfer as in the trespass context is not a viable option. Due to the high transaction costs, the market will not take care of it. Dorfman and Jacob trace the high transaction costs often associated with copyrighted works to what they call the circumstances of "intangible property."[39] These circumstances arise from a combination of the traits of expressive works and the underlying legal framework.

There are four main features of expressive works that account for the high transaction costs associated with them.[40] The first is elusive boundaries. It is often hard to ascertain whether and when the boundaries of an expressive work have been transgressed. Commentators often blame these elusive boundaries

[36] *See, e.g.*, Avihay Dorfman & Assaf Jacob, *Copyright as Tort*, 12 THEORETICAL INQUIRIES L. 59, 84-85 (2011) (describing situations in which the law seeks "to channel the parties into a market transaction"). Note that the view described in the text is *not* tantamount to saying that copyright entitlements should be absolute or unlimited. Copyright involves an optimal balance between the incentive benefit produced by exclusive rights and the inescapable access costs associated with such exclusive rights. One may concede that the scope of copyright's exclusive rights must reflect this balance and yet argue that once this optimal scope is established accident situations should be dealt with by strict application of these rights aimed at facilitating private transactions.

[37] *Id.* at 84-86 (explaining why a "use the market" approach fails to remedy copyright accident "either because there is no market or because the costs of reaching an arm's-length transaction are prohibitive").

[38] *Id.* at 86. This formulation may imply that, in the context of tangible property or at least in the subset of cases covered by trespass today, the trespass approach is necessarily justified. This is not the position of Dorfman and Jacob and it is certainly not ours. We argue here that the accidents approach fits copyright while leaving open the possibility that it also fits various contexts of tangible property, including some that fall today within the trespass category.

[39] *Id.*

[40] *See id.* at 86-93.

on the law.[41] A long list of features of copyright law—the denial of protection to factual and functional subject matter, the *scènes à faire* doctrine that allows the copying of stock expressive elements, the substantial similarity requirement as a precondition for infringement, and the distinction between protected expression and unprotected ideas to name but a few—often make the determination of whether the protected boundaries of a copyrighted work had been transgressed a complex and uncertain enterprise.[42] Arguing for a fault standard in infringement on the basis of a reasonable mistake in applying the relevant law gives rise to a variety of thorny and complex questions. Here we prefer to avoid this minefield by bracketing the question of copyright accidents traceable to the uncertainties of applicable law. Even laying legal uncertainty aside, in a significant number of cases transgression upon the boundaries of copyrighted works remains hard and costly to ascertain. A classic illustration is our programmer example above. In cases such as this, it is difficult for the user to determine whether her planned use will involve any copying of protected expressive material, even before she considers whether that copying actually rises to the level of a legally prohibited transgression.

A second feature that makes transacting over copyright entitlements costly is the often uncertain legal status of the work.[43] Even when one knows that she is copying, it may be difficult to find out whether, as a factual matter, the copied work is under copyright protection. Consider the case of an artist who combines in her visual collage a found old black and white photograph that bears neither copyright notice nor any other meta-information. Is this photograph in the public domain or under copyright protection? Answering this question is likely to involve costly factual inquiries. These difficulties are exacerbated by the background rules of copyright including the very long copyright term and the fact that registration, affixing of notice, and recordation of assignments are all optional.[44]

Then there is the fact that in many cases, even when one can assume that the boundaries of a copyrighted work are being transgressed, there may be a

[41] *See, e.g.*, Ciolino & Donelon, *supra* note 12, at 381-84; Lipton, *supra* note 12, at 776; *cf.* Dorfman & Jacob, *supra* note 36, at 87-88.

[42] Dorfman & Jacob, *supra* note 36, at 88 (listing examples in which "the *protected* story, or to be more exact, *the author's rights in it*, are not delineated in a very clear manner, the story's spatial boundaries are missing, and there is no clear signal to the user about what is protected and what is not").

[43] *Id.* at 88-90 (recognizing that "unlike tangible property, where . . . a general assumption of ownership over objects" is "prevalent and embedded in the system[,]" the same "general assumption of ownership over objects—in the area of copyrights . . . cannot hold").

[44] *See* Ciolino & Donelon, *supra* note 12, at 384-85; Dorfman & Jacob, *supra* note 36, at 88-89.

plausible doubt about whether the use at issue is permitted by the owner.[45] Many copyright owners are happy to allow various uses of their works. Take, for example, Google's full digital reproduction of the text of books as a necessary step in making them digitally searchable by a search engine open to the public.[46] Some copyright owners would object to such a use of their works, others would be agnostic, and many others for a variety of reasons would endorse such a use.[47] Sometimes the owner's attitude would be clear from the context or from meta-information attached to the work, but in many cases it would not. Copyright's very weak filters fuel this difficulty. Because modern copyright extends to any work that shows minimal originality automatically upon fixation, a vast number of works are protected and there is much heterogeneity in the circumstances of the works, their owners, and the surrounding context.[48] The result is that often the owner's preference in regard to a particular use is neither obvious nor trivial to ascertain.

Finally and relatedly, ascertaining the identity of the copyright owner—which might be the key for uncovering other pertinent information—may often be costly.[49] Copies of expressive works often circulate without clearly declaring their owners or how to find them. Again, this difficulty is exacerbated by copyright's background rules, including its broad sweep, long duration, the complex rules of authorship and ownership, and the fact that registration, notice, and recordation of transfers are all voluntary.[50]

All of these circumstances mean that in many cases the costs associated with transactions over entitlements will be high and even prohibitive. Although this proposition is not always true, it is true often enough to make a sweeping reliance on market transactions unattractive.[51] In this respect copyright is

[45] Dorfman & Jacob, *supra* note 36, at 90-92 (calling this the "*object sociability*" circumstance of intangible property).

[46] *See* Authors Guild, Inc. v. Google Inc., 954 F. Supp. 2d 282 (S.D.N.Y. 2013), *aff'd*, 804 F.3d 202 (2d Cir. 2015), *cert. denied*, 84 U.S.L.W. 3357 (2016).

[47] *See* Brief of Amici Curiae Academic Authors in Support of Defendant-Appellant and Reversal at 1, Authors Guild, Inc. v. Google Inc., 721 F.3d 132 (2d Cir. 2013) (No. 12-3200-cv), 2012 WL 5902375 (expressing the position of academic authors who "want the Google Books project to continue to provide public access to snippets from our books and from those of other academic authors"); Oren Bracha, *Standing Copyright on Its Head? The Googlization of Everything and the Many Faces of Property*, 85 TEX. L. REV. 1799, 1834 (2007).

[48] Dorfman & Jacob, *supra* note 36, at 88-89; Christopher Sprigman, *Reform(aliz)ing Copyright*, 57 STAN. L. REV. 485, 515-16 (2004) (discussing the effects of "unconditional copyright").

[49] Dorfman & Jacob, *supra* note 36, at 92-93.

[50] Bracha, *supra* note 47, at 1824-25.

[51] To be sure, this point is not entirely new to copyright lawyers. Wendy Gordon argues that one understanding of the fair use doctrine is as designed primarily to solve such situations. *See* Wendy J. Gordon, *Fair Use as Market Failure: A Structural and Economic*

similar to tort law, which typically deals with the allocation of risks between individuals in situations where transaction costs of private agreements are high.[52] But concluding, as Dorfman and Jacob do, that in such a case the law should optimally allocate entitlements and risks between parties rather than count on voluntary transactions to do so[53] is only the first step. This conclusion does not answer the next question precipitated by it, namely: *How* should the law allocate the risk between relevant parties? At this point, the relationship between copyright accidents and tort's law of accidents acquires new significance. The law of accidents provides not just the basic conclusion that a legal standard is required, but also a well-developed, normative-analytical framework for deciding what this standard should be. Before turning to the application of this framework to the copyright context in the next Part, a more detailed elaboration of the common structure of traditional accidents and copyright accidents is required.

B. *An Anatomy of the Copyright Accident*

What then are the essential characteristics of a copyright accident? First and foremost, copyright accidents occur when, at the time of the decision to copy, the user is aware only of a probability of infringement rather than a certainty. To be sure, absolute certainties are rare. Even someone who makes a verbatim copy of an in-print copyrighted novel bearing a recent copyright notice for purposes of direct commercial competition might argue that there is *some* miniscule probability that the copyright owner would not mind and hence that an injury is not certain to follow. There is however a pragmatic line that divides cases where the probability of injury is high enough to be practically treated as a certainty from cases of substantial probability where ex ante the activity at issue poses only a risk of injury.

Cases of ex ante risk are ubiquitous in copyright and they come in different forms. Consider the following examples. A musician is sued for allegedly basing the tune of his composition on another popular song. The court determines as a factual finding that the musician did not consciously copy, but that, given the popularity of the original song and degree of similarity, the most plausible inference is that the musician unconsciously derived his tune from

Analysis of the Betamax *Case and Its Predecessors*, 82 COLUM. L. REV. 1600 (1982). In this interpretation, fair use exists to allow participants to bypass the market when voluntary transactions would lead to sub-optimal welfare results. *Id.* at 1601. However, as we show later, the current fair use doctrine does not achieve this goal in accident cases because it fails to take into account the fact that ex ante there is only risk of infringement. *See infra* notes 187-89 and accompanying text.

[52] *See* ROBERT COOTER & THOMAS ULEN, LAW & ECONOMICS 325 (5th ed. 2008).

[53] Dorfman & Jacob, *supra* note 36, at 94.

the original song.[54] A filmmaker obtains permission to combine in the soundtrack of his documentary about a 1970s underground singer several songs by said singer. After the documentary attains surprising success, a third party materializes and claims that the lyrics were actually largely copied by the singer from the third party's unpublished poems and that as a result the documentary infringes his copyright.[55] In her book manuscripts, a historian of design includes photographs from 1930s European magazines of items designed in art deco style. The photographs as they appeared in the magazine contained neither notice nor any meta-information. After publication, the historian's publisher receives a letter from a person claiming to be the heir of the photographer and copyright owner of the photographs and demanding substantial compensation for any past and future use of the images. An architect produces architectural plans for a client's house. The plans are derived from rough drafts provided by the client. The client plausibly explains that she made the drafts. After the structure is built, a third-party architect files suit against the firm claiming that the drafts were actually made by him in the course of previous dealings with the client.

In all of these cases we have an injurer user and a victim copyright owner who suffers an injury. But in all of these cases ex ante—at the time of the relevant action from the point of view of the user—the action involved only a *probability* of injury to the copyright owner. The user knew or at least should have known that his actions entailed a risk of an injury. But, just as in other accidents, it was only a risk, not a certainty, of which she should have been aware. In copyright accidents ex ante uncertainty is traceable to the incomplete information available to the user.[56] If the actors in each of the examples above had complete information about all relevant factors, including the work's legal status, the fact of copying, and the identity and preference of the copyright owner, they would have certainty about the injury caused by their actions. The lack of such complete information is what makes the injury only a risk.

Now consider how the risk of infringement alters the normative evaluation of a user's conduct. From an efficiency perspective, copyright is a measure for ensuring optimal incentives for creation under conditions where creators' inability to exclude copiers and the low cost of copying compared to creation are likely to significantly erode these incentives.[57] Copyright always comes, however, with a price tag in the form of an inefficient restriction on access to existing works, both for purposes of consumption and for purposes of future

[54] *See* Bright Tunes Music Corp. v. Harrisongs Music, Ltd., 420 F. Supp. 177 (S.D.N.Y. 1976).

[55] The hypothetical is inspired by the different facts of *Gomba Music, Inc. v. Avant*, 62 F. Supp. 3d 632 (E.D. Mich. 2014).

[56] Arguably this is ultimately true of all accidents.

[57] *See* Glynn S. Lunney, Jr., *Reexamining Copyright's Incentives-Access Paradigm*, 49 VAND. L. REV. 483, 485 (1996).

creation.[58] Therefore efficiency's touchstone for optimal copyright is the proper balance between copyright's incentive benefits and access costs. More specifically, its creed is bestowing on the copyright owner only exclusive rights whose incentive benefit clearly outweighs their access cost.[59] Returning to our context, assume that in each of the examples of copyright accidents above the injury is such that if done under conditions of ex ante certainty, it should be deemed infringing. This means that including this action within the scope of the exclusive rights of the copyright owner generates more incentive benefit than access cost. It does not follow from this assumption, however, that the same cost/benefit analysis conducted when there is only a risk of injury would lead to the same conclusion. Looking at the question ex ante from the point of view of the injurer, now his action involves only a risk of injury and therefore a discounted expected harm. Being able to exclude others from a certain injurious action is worth more to the copyright owner and therefore generates more incentive for creation than being able to exclude others from actions that generate mere risks of the same injury. The discounted expected harm of the injurer's actions, under conditions of risk and the corresponding discounted incentive benefit of prohibiting it, open for reevaluation copyright's basic cost/benefit calculus.

At this point it should be easy to see that copyright accidents pose the dilemma famously described by Ronald Coase as standing at the heart of tort law.[60] Coase argued that the question of social cost is not how to restrain *A* who inflicts harm on *B*. Because potentially tortious acts often involve legitimate and useful activities that harm or risk harming others, restricting such activities is itself harmful.[61] Restraining a factory from operating because it inflicts harm on fishermen by polluting a stream inflicts harm on the factory by preventing (or raising the cost of) its manufacturing activity. The problem is one of "a reciprocal nature": Should the law avoid the harm to *B* by inflicting harm on *A*, or vice versa?[62] Copyright accidents (like accidents in general) are a private case of this dilemma. Injurers, such as the musician, the documentarian, the historian, and the architect in the examples above, are engaged in beneficial activities that impose a risk of harm on others. Restraining such activities to avoid their risk will impose harm on those who engage in them and on those who benefit from them. "The problem is to avoid the more serious harm."[63] The feature that distinguishes accident cases is that, having decided that certain activities are worth restraining when injurious

[58] *Id.*

[59] William W. Fisher III, *Reconstructing the Fair Use Doctrine*, 101 HARV. L. REV. 1659, 1703-04 (1988).

[60] R.H. Coase, *The Problem of Social Cost*, 3 J.L. & ECON. 1 (1960).

[61] *Id.* at 2

[62] *Id.*

[63] *Id.*

effects are certain to follow from them, it does not follow that the same activities are worth restraining when they entail only a risk of similar injurious effects. An action that entails a ten percent risk of copying someone's work should be evaluated differently than an action that is certain to do so, just as taking a drive that entails a ten percent risk of hitting somebody is evaluated differently than taking the same drive when it is known for certain that someone will be hit.

The last general lesson from the realm of accident law, whose applicability becomes apparent once we reconceive the copyright accident as such, is the concept of cost-effective prevention. Accident law, the maxim is often repeated, is not about perfect prevention of harmful activities. The logic underlying this law is rather that of cost-effective prevention.[64] The law is shaped with the purpose of giving those actors who are best situated to prevent accidents incentives to invest optimally in their prevention; that is, to invest up to the point where the marginal benefit of prevention equals the marginal cost of the precautions. To put it bluntly, as Guido Calabresi did, we consciously tolerate a certain level of accidents because of our prediction that the cost of eliminating them will be much greater than the benefit.[65] The same applies to the law of copyright accidents. In each of the examples above the copyright injurers could have avoided the injury to the victim. They could have taken precautions, usually in the form of investment in uncovering the lacking information about the fact of copying, the work's status, or the copyright owner's identity and preference. Alternatively the injurer could have forgone his action altogether, thereby eliminating the risk associated with it. Each of these preventive measures, including forgoing the risk-inducing action, has a cost. As with accident law in general, the purpose of copyright accident law should not be the elimination of copyright accidents. Nor should it have a unitary focus on the user and the preventive measures available to him. The goal of copyright accident law should be giving all relevant actors optimal or cost-justified incentives for the prevention of accidents. Among other things, it is likely that the result of such a criterion will be tolerating ex post a certain amount of injurious activities that under non-accident circumstances are deemed infringing.

Armed with these basic insights from the realm of accident law—about risk, the optimal allocation of social cost, and optimal preventive incentives—we proceed to examine in detail the appropriate legal treatment of copyright accidents.

II. SHOULD COPYRIGHT HAVE A NEGLIGENCE REQUIREMENT?

Whether copyright accidents should be governed by a negligence standard is a normative question. Answering it requires a normative framework. The bulk

[64] GUIDO CALABRESI, THE COSTS OF ACCIDENTS 17-24 (1970).

[65] *Id.* at 17-18.

of our analysis adopts economic efficiency as its normative guiding light. At the end of this Part, however, we switch our normative lens from efficiency to several competing normative frameworks that share a family resemblance: self-determination, cultural democracy, and human flourishing. The analysis reveals that copyright accidents should be governed by a negligence rule. After comparing strict liability with several variants of negligence, we find that a simple negligence rule is optimal from both efficiency and equitable distribution of risk perspectives.

A. *A Unilateral Model*

Starting with brutally simplified assumptions, postulate that copyright accidents always involve a unilateral model and that the only available legal rules are strict liability and negligence. A unilateral model means that only one party—in this case, the injurer—can take effective precautions against the harm. As a result, the only relevant question is which legal rule will incentivize the injurer to invest optimally in accident prevention.

Under a strict liability rule, an injurer is liable whenever he engaged in a proscribed activity that caused damage to the victim.[66] The strict liability rule requires neither the balancing of the parties' interests nor consideration of whether ex ante the injurer's actions entailed only a risk. The translation of strict liability into copyright doctrine is straightforward. Under this rule a defendant would be liable whenever his action falls within the exclusive right of the copyright owner and is not shielded by one of copyright's exemptions or defenses.[67] That the infringement was an accident has no relevance under this rule.

By contrast, establishing liability under a negligence rule requires more than showing that the injurer engaged in a proscribed conduct that caused harm. Here liability also requires that the injurer's conduct fail a case-specific normative evaluation often referred to as the reasonable person standard.[68] Within the efficiency framework it is universally accepted that the criterion for evaluating the injurer's conduct under the reasonable person standard is comparing the costs and benefits of the preventive measures available to him

[66] GOLDBERG & ZIPURSKY, *supra* note 2, at 90.

[67] As explained above, existing copyright doctrine has an extra wrinkle that complicates the traditional distinction between strict liability and negligence. Arguably, because copyright infringement is subject to case-specific balancing formulas embodied in the fair use doctrine and the improper appropriation requirement, it does not conform neatly to the definition of strict liability. *See supra* text accompanying notes 22-24. It is clear, however, that existing copyright does not subject infringement to a negligence standard because its balancing mechanisms do not take into account circumstances where ex ante there is a mere risk of infringement. Therefore, existing copyright may be described as a hybrid standard, located in between the ideal models of strict liability and negligence.

[68] *See* 1 DOBBS ET AL., *supra* note 2, § 127.

ex ante at the time of his conduct.[69] The injurer is liable only if he failed to take a cost-justified preventive measure. This criterion is operationalized through the famous Learned Hand formula commonly formalized as: $B<PL$.[70] In this formula B represents the *marginal* cost ("the burden") to the injurer of taking a certain precaution, L represents the *marginal* loss to the victim that would be avoided by that precaution, and P represents the probability of that loss occurring. Under the Hand formula an injurer is negligent, and therefore liable, only when she failed to take a precaution whose marginal benefit in reducing the expectancy of harm outweighs its marginal cost.[71]

Translating the negligence standard into copyright terms requires some explication. As in the general Hand formula, the negligence calculus must be applied ex ante, meaning, at the time at which the injurer undertook the relevant conduct. The burden on the injurer would be the cost of a relevant preventive measure, such as trying to ascertain a work's legal status, detect unknown copying, or uncover the identity of a copyright owner and discovering her preference. To the extent there is a claim that a possible preventive measure was forgoing the injurer's activity altogether, the cost of that measure would be the opportunity cost of such forbearance. On the other side of the formula the marginal loss avoided must be discounted by the probability, at the time of the conduct, of the injury occurring. The tricky question is: What is the loss that should be avoided? In terms of copyright policy, this is not the ex post private damage suffered by the copyright owner, such as lost sales or forgone licensing fees. The real loss is the negative incentive effect on creation that such private loss might have. In other words, what matters in terms of public policy is the extent to which (if any) the private loss suffered by the copyright owner (at *t1*) might reduce the incentive to create by those who anticipate such potential injury (at the later time of *t2*).[72] For simplicity of analysis, we will assume that the owner's private loss (at *t1*) is a suitable proxy for the lost incentive to create (at *t2*). Thus, a negligence standard in copyright would compare the cost of the user's precautions against the expected private harm to the owner.

In a unilateral model, a strict liability and a negligence rule would create equally optimal preventive incentives to the injurer and as a result strict

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[69] WILLIAM M. LANDES & RICHARD A. POSNER, THE ECONOMIC STRUCTURE OF TORT LAW 63-64 (1987).

[70] United States v. Carroll Towing Co., 159 F.2d 169, 173 (2d Cir. 1947); *see* COOTER & ULEN, *supra* note 50, at 349-51; LANDES & POSNER, *supra* note 69, at 85.

[71] *See Carroll Towing*, 159 F.2d at 173.

[72] *But see* Glynn S. Lunney, Jr., *Fair Use and Market Failure:* Sony *Revisited*, 82 B.U. L. REV. 975, 1014 (2002) (highlighting the danger of relying on the owner's private harm as a proxy for public harm). More accurately, the inquiry is about the total value of works not created because their potential creators anticipate at the time of creation the private damage that will be caused by an action equivalent to that of the defendant.

liability is preferable.[73] Under a negligence rule the injurer would invest only in cost-effective precautions. If a precaution is cost-effective, the injurer is required to take it to avoid liability, and he will take it because (assuming full compensatory damages) the expected amount of damages is greater than the cost of the measure.[74] If a precaution is not cost effective, the injurer is free from the risk of liability and he has no incentive to take it. Perhaps more surprisingly, a strict liability rule will lead to the same results.[75] Under a strict liability rule the injurer is liable for any damage caused by him. But this does not mean that the injurer has an incentive to take any prevention measure. Expecting to internalize the damage, the injurer would only take measures whose cost is smaller than their marginal effect on the expected loss.[76] From his perspective, better to incur a risk of liability than invest in a preventive measure whose benefit in reducing the expected harm is outweighed by its cost.

If both rules are expected to yield identical preventive outcomes, why is strict liability preferable? Because the different rules have other effects that make strict liability superior. The two most prominent ones are administrative cost and error cost. Administrative cost is the cost of resolving disputes incurred by both the parties and any institution involved, such as a court.[77] Error cost is the cost produced by suboptimal incentives created by a legal standard whose content and application inaccurately track the underlying policy.[78] It is commonly assumed that because negligence requires a complex determination based on much more contextual information, strict liability involves significantly lower administrative and error costs.[79] As we argue below, these assumptions are overstated.[80] Nevertheless, it is plausible that negligence is a more costly legal standard overall. Therefore, if, as the unilateral model shows, strict liability leads to the same incentive effects as negligence, strict liability should be preferred.

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[73] *See* SHAVELL, *supra* note 5, at 181-82.

[74] *Id.* at 180.

[75] *Id.* at 179-80.

[76] In the context of copyright, this is a gross over-simplification because compensatory damages are not the only remedy for copyright infringement. Statutory damages and disgorgement of profits are generally available to plaintiffs. *See* 17 U.S.C. § 504(b)-(c) (2012). Because these remedies are expected to be selected when their value exceeds compensatory damages, the result is distortion of preventive incentives. As a rule, under strict liability, injurers who face supra-compensatory damages, as in copyright, will sub-optimally over-invest in prevention. *See infra* text accompanying notes 138-40.

[77] COOTER & ULEN, *supra* note 52, at 359-61.

[78] *Id.* at 353-58.

[79] *See id.* at 356, 360; SHAVELL, *supra* note 5, at 264.

[80] *See infra* Sections II.C.2, II.C.3.

Under a charitable reading, in the few instances where courts and commentators tried to justify copyright's existing strict liability rule in policy terms, they had in mind reasoning similar to the one just explained. Such courts and commentators argued that infringers are in a better position to prevent the accidental infringement and that a strict liability rule would incentivize them to do so.[81] The argument that copyright infringers are always better situated to avoid copyright infringement is a version of the unilateral model. In effect, it says that typically it would be only the infringer who can take effective measures to avoid the accidental infringement and therefore a strict liability rule would produce the same incentives as a negligence one with lower administrative and error cost.[82]

However, copyright accidents typically do not fit the mold of the unilateral model. In many cases copyright owners can take their own preventive measures to avoid or at least reduce the risk of accidental infringement. Copyright owners could for example utilize the voluntary measures of copyright registration, notice and recordation of transfers, in order to make up-to-date information better accessible to others.[83] Similarly, owners can often attach other meta-information about the work's status or their preferences to copies of the copyrighted work.[84] In cases such as mass digitization projects, users of potentially copyrighted works often give owners an easy, well-publicized, and cheap opportunity for opting out from a particular use of their works. Owners can take advantage of this opportunity and remove the informational fog shrouding their work and preferences.[85] Owners also often have available preventive means in cases like the computer code or song lyrics copied by derivation from a third party who has illegally incorporated the protected work into his own work or misrepresented his rights in regard to the

[81] *See* Shapiro, Bernstein & Co. v. H.L. Green Co., 316 F.2d 304, 308 (2d Cir. 1963); Gener-Villar v. Adcom Grp., Inc., 509 F. Supp. 2d 117, 125-26 (D.P.R. 2007); *see also* ALAN LATMAN & WILLIAM S. TAGER, STUDY NO. 25: LIABILITY OF INNOCENT INFRINGERS OF COPYRIGHT, *in* STAFF OF S. COMM. ON THE JUDICIARY, 86TH CONG., COPYRIGHT LAW REVISIONS: STUDIES NO. 22-25, at 155-57 (Comm. Print 1960); 2 PAUL GOLDSTEIN, GOLDSTEIN ON COPYRIGHT § 11.4 (3d ed. 1989); NIMMER & NIMMER, *supra* note 11, § 13.08[B][1]; Sinclair, *supra* note 11, at 952.

[82] Of course, one may disagree with the proposition that the infringer is typically better situated to prevent the accidental infringement. *See* Ciolino & Donelon, *supra* note 12, at 378-85.

[83] *See* 17 U.S.C. §§ 205, 401, 408 (2012).

[84] For example, enabling owners to indicate their preferences to users was a major impetus behind the Creative Commons licensing framework. Creative Commons offers six different licenses, each of which conveys to the user what uses the owner will permit. By attaching the relevant "Commons Deed" (a logo that indicates which license covers the work), all users receive a clear signal of the owner's preferences. *See About the Licenses*, CREATIVE COMMONS, http://creativecommons.org/licenses/ [https://perma.cc/H8TE-HZ8B].

[85] *See* Bracha, *supra* note 47, at 1840-58.

protected work. In such cases owners can often move expeditiously and effectively against the third party, thereby removing the hazard created by him for accidental infringement by others. In appropriate cases owners can effectively "spread the word" about such hazards created by illegal or misrepresenting uses of their works. The variations are many and the list could be extended, but the principle should be clear: copyright owners often have at their disposal effective preventive measures for reducing the risk of accidental infringement of their works.

This is not always true. In some instances, there may truly be no preventative measures available to the owner. For example, in a standard case in which a musician unconsciously copied a popular copyrighted song in writing his own tune, it is hard to imagine what effective preventive measures the copyright owner could have taken.[86] But it hardly seems controversial to assume that the typical case in copyright accidents is one in which the copyright owner has some preventive means at her disposal. Furthermore, in some instances the user may be better placed than the owner to prevent the accident. But note, the critical question distinguishing a unilateral from a bilateral model is *not*: Who is better situated to prevent the accident? It is, rather: Can both injurer and victim take meaningful (non-duplicative) preventive measures?[87] Perhaps it is the case that in most copyright accidents as between the user and the owner the former is better situated to prevent the accident. But it is certainly the case that in many copyright accidents copyright owners could take some meaningful, non-duplicative measures to reduce the risk of infringement.

Under such circumstances the inquiry is no longer which legal rule would optimally incentivize potential injurers to take precautions. Nor is it about how to optimally incentivize the party who is better situated to prevent the accident. The question becomes how to incentivize *both* potential injurers and victims to optimally invest in prevention. In many cases the optimal overall preventive strategy would be one that combines precautions taken by both of these parties. The search is for a legal rule that would incentivize both injurers and victims to undertake available cost-effective precautions. Locating such a rule requires an analysis under a bilateral model.

B. *A Bilateral Model*

When effective preventive measures are available to both potential injurers and victims, a negligence standard is generally superior to strict liability in

[86] *See* Bright Tunes Music Corp. v. Harrisongs Music, Ltd., 420 F. Supp. 177 (S.D.N.Y. 1976).

[87] *See* SHAVELL, *supra* note 5, at 18 ("[B]oth injurers and victims generally ought to do something to avoid risk; the effect of liability rules is therefore different from that in the least-cost avoider model.").

creating optimal prevention incentives.[88] The reason is that under strict liability the victim has little to gain from taking preventive measures. Strict liability will cause, for example, a user encountering a work of uncertain legal status to invest optimally in trying to obtain the relevant information. But it will not cause the copyright owner to invest in readily available, cost-effective measures that may further reduce the chance of infringement and facilitate the search by the user. The owner has no interest in undertaking such investment because strict liability shifts the entire risk to users. The owner will not internalize any preventive benefits, no matter how cost-effective.

This is, of course, a highly stylized analysis. In reality, even under the current strict liability standard many copyright owners do use notice and registration. They do so for a variety of reasons. First, the Copyright Act[89] creates incentives for using notice and registration by attaching significant advantages to such use. The most significant advantages include the denial of an innocent infringement defense in mitigation of statutory damages when notice is attached,[90] a prima facie presumption of validity and ownership when the work is registered,[91] and the availability of statutory damages and attorneys' fees only for registered works.[92] Second, copyright owners may anticipate that settlement and litigation are unlikely to make them whole for the damage of infringement, including the resources they would have to invest in detection and dispute resolution. The highly discretionary power of courts to award costs and attorneys' fees,[93] together with compensatory damages and supra-compensatory remedies such as disgorgement of profits[94] and statutory damages,[95] may lead sophisticated copyright owners to predict that ex post enforcement will fail to consistently compensate them for the combined sum of damage suffered and enforcement cost. To the extent that this is the case—which is a proposition that is highly debatable—owners do bear some of the cost of accidents even under a strict liability rule and therefore have some incentive to invest in their prevention.

Whatever the reasons for the partial use of precautions by copyright owners even under the current strict liability regime, it is far from clear that they are sufficient for ensuring optimal prevention measures.[96] There is simply no

[88] COOTER & ULEN, *supra* note 52, at 341-44; SHAVELL, *supra* note 5, at 18.

[89] 17 U.S.C. §§ 101-810 (2012).

[90] *Id.* § 401(d).

[91] *Id.* § 410(c).

[92] *Id.* § 412.

[93] *Id.* § 505.

[94] *Id.* § 504(b).

[95] *Id.* § 504(c).

[96] Peter S. Menell & Michael J. Meurer, *Notice Failure and Notice Externalities*, 5 J. LEGAL ANALYSIS 1, 22 (2013) ("[T]he Copyright Office registry is notably incomplete . . . ."). Casual empiricism suggests that the current incentives for copyright

guarantee that whatever partial incentives exist for using notice and registration are strong enough so they are used on an adequate level. The plausibility of any belief in the adequacy of alternative sources of incentive for optimal precautions by copyright owners drops even more steeply once we consider effective means other than the formalities encouraged by the statute.[97]

Negligence, by contrast to strict liability, causes both parties to internalize the value of their preventive measures. Under negligence the user would take cost-effective measures available to him because this is a precondition for escaping liability. The owner, however, is still the residual bearer of the risk: any harm created when no negligence was present will be borne by him. As a result, owners will internalize the value of any additional cost-effective preventive measures and therefore will take these measures.[98] Consider for example the case of the programmer who copies computer code that is contaminated with copyrighted code. Under a negligence rule the programmer has incentive to invest up to the cost-effectiveness point in exploring the source of the code she is using and ascertain that it is not contaminated by proprietary code. The owner, however, will still suffer the harm if the programmer undertakes such measures (and therefore is not negligent) but the preventive measures fail. As a result the owner has incentive to undertake his own cost-effective measures for reducing the risk. The owner could, for example, search for third parties who disseminate code containing his own, act expeditiously against such parties of whom he is aware, and spread warnings to potential innocent users. By taking these measures the owner would be removing traps that may lead to accidental infringement and reducing the risk of the accident.

The prevention incentives created by a negligence rule will often have a synergetic effect. In such cases the effect of the preventive measures taken by the owner are not simply cumulatively added to that of the user's precautions. The two sets of precautions may facilitate each other thereby creating a whole

owner precaution are insufficient. In both the U.S. and Europe, a growing body of literature advocates for the reintegration of some meaningful formalities to copyright protection. *See generally* STEF VAN GOMPEL, FORMALITIES IN COPYRIGHT LAW (2011); Sprigman, *supra* note 48, at 545-68 (arguing that compliance with formalities is easier today and that therefore the costs no longer outweigh the benefits). Part of the reason behind this move is recognition that currently copyright owners do not take enough steps to prevent cases of accidental infringement. *See, e.g.*, Sprigman, *supra* note 48, at 495-99.

[97] *See* Menell & Meurer, *supra* note 96, at 14-15 (discussing reasons why right owners may refrain from investing in providing notice of their rights to others). Note that the alternative means of precaution (beyond notice and registration) may be as effective as traditional formalities, but are not necessarily as entrenched in professional cultural norms and path dependencies of copyright history. *See, e.g.*, Sprigman, *supra* note 46, at 501 (explaining that early formalities, such as "registration, notice, and recordation," helped improve information about ownership).

[98] *See* SHAVELL, *supra* note 5, at 8, 14.

greater than the sum of its parts. An owner who attaches notice and other meta-information to the work reduces the cost of the information search by the user and increases its effectiveness in preventing the accident. A user engaged in mass digitization who creates a well-publicized, easily accessible opt-out option for owners who notify him of their objection creates a new cheap and effective prevention measure available to the owner. In this way the reciprocal preventive incentives generated by negligence often create coordination between owners and users even when these parties have no direct contact. The effect of such legally induced coordination is synergetic joint preventive strategies.

In principle, the incentive to take precautions given by negligence to both owner and user can be a curse as well as a blessing. In situations in which uncoordinated owner and user take measures whose benefit in preventing the harm is duplicative of each other, the outcome is a social waste of resources. In the context of copyright accidents, however, the scenario of wasteful, duplicative precautions, while not impossible, seems atypical. This follows from the informational nature of the accident and the relevant precautions. Given this nature, a typical precaution undertaken by an owner is aimed toward making information available to potential users. The typical precaution undertaken by a user usually aims toward uncovering relevant information. As a result, owner and user precautions will tend to be synergetic (i.e. increase each other's value) or at least cumulative and only seldom will be duplicative. It follows that a negligence rule will produce combined precautionary measures from both owners and users that, on balance, are more socially optimal than the user-only precautions induced by strict liability.[99] The clear conclusion of the analysis is that negligence, unlike strict liability, desirably incentivizes bilateral care. However, this does not tell us what form of negligence rule should apply. So far, we have considered a simple negligence rule. But three variants on the negligence rule must be considered: comparative negligence, negligence with contributory negligence, and strict liability with contributory negligence. We mention comparative negligence only to dismiss it summarily. Under a comparative negligence rule the negligence (if any) of both the injurer and the victim must be determined and quantified.[100] Responsibility for the harm is then divided between the parties in proportion to the relative contribution of their negligence to the accident.[101] Comparative negligence is broadly applied by courts in traditional accident cases.[102] Yet the major disadvantage of this rule—its high administrative and error costs—is likely to be calamitous in the context of copyright. A comparative negligence

[99] *See id.* at 16.

[100] *See, e.g.*, *id.* at 15.

[101] *See* COOTER & ULEN, *supra* note 52, at 345.

[102] 1 DOBBS ET AL., *supra* note 2, § 220, at 772 (finding the "overwhelming majority" of states follow a modern comparative negligence system).

rule requires two costly and complex negligence findings, one in regard to each party, and then a third finding to determine the relative share of the parties' negligence. In the area of copyright each of those determinations, and especially the third one, is often very complex.[103] This makes decisions under this rule costly, prone for error, and ultimately undesirable.

Negligence with contributory negligence requires two cumulative conditions for liability: negligence by the injurer and lack of negligence by the victim.[104] Accordingly this rule also necessitates two distinct negligence inquiries. First it must be determined if the injurer was negligent. A positive answer to this question is insufficient for liability, but rather necessitates a second inquiry about the victim's negligence. Contributory negligence of the victim would bar liability even if the injurer was negligent. By contrast, strict liability with contributory negligence means that the injurer is liable for the accident unless the victim was negligent.[105] Under this rule, only the negligence of the victim must be assessed. If, and only if, the victim was negligent by failing to take a cost-effective precaution, there would be no liability.

Both of these alternative liability rules are as effective as simple negligence in incentivizing bilateral care.[106] Negligence with contributory negligence creates optimal incentives for the injurer because he is guaranteed escaping liability only if he takes cost-effective measures. The victim too is optimally incentivized for two reasons. Under the assumption that the injurer will avoid being negligent, the victim expects to bear the cost of the accident and therefore will internalize the value of his cost-effective preventive measures. The fact that even if the injurer was negligent the cost of the accident will only be shifted to the injurer if the victim took optimal precautions gives the latter another reason to take such precautions. Under strict liability with contributory negligence the victim is incentivized to take optimal precautions in order to make sure that the cost of the accident is borne by the injurer and not shifted to him. As for the injurer, he is the residual bearer of the harm and therefore he will internalize the value of any preventive measure and has incentive to take any such cost-effective measure.

The tentative conclusion is clear. As copyright accidents conform to the bilateral model, strict liability is inferior to all versions of the negligence rule in regard to the most important dimension of evaluating liability rules. Negligence, strict liability with contributory negligence, and negligence with contributory negligence all give adequate preventive incentives to both the user

[103] *Cf.* COOTER & ULEN, *supra* note 52, at 353-60 (discussing administrative and error costs with negligence rules generally).

[104] *See* SHAVELL, *supra* note 5, at 14-15.

[105] *Id.* at 12-13.

[106] *See generally id.* at 13-16.

and the copyright owner.[107] As a result these rules will elicit optimal preventive behavior from all the parties who are well situated to reduce the risk of copyright accidents and often will create the conditions for synergetic joint-prevention strategies. Strict liability, by contrast, incentivizes only the user to take precautions and gives no reason to the owner to efficiently invest in prevention. Some copyright owners, for a variety of reasons distinct from the applicable liability rules, do undertake some traditional precautions—most commonly notice and registration. But there is no reason to believe that they have sufficient incentive to do so at an optimal level. Before declaring strict liability's defeat, however, we must compare the four available liability rules along other relevant dimensions.

[107] There is an important caveat in relation to this general statement. In the standard economic analysis of law, while all three rules provide equal incentives for bilateral care, they differ on the issue of activity levels and other unobservable precautions. *See generally* COOTER & ULEN, *supra* note 52, at 348 (explaining the concept of activity levels); Steven Shavell, *Strict Liability Versus Negligence*, 9 J. LEGAL STUD. 1 (1980). Both parties can reduce the probability of an accident occurring either by taking more precautionary measures, or simply by engaging in the activity less often. For example, motorists can reduce the chance of accidents occurring either by driving more carefully (more frequent checks of mirrors, for example) or simply by driving less frequently. In theory, there is an optimal activity level for each party that should be taken into account in the negligence standard. *See* SHAVELL, *supra* note 5, at 26-28. Typically however the negligence standard cannot be reflected to take this into account due to informational burdens it would place on the court. *See* Shavell, *supra*, at 22 (explaining that the level of activity is not considered when formulating standards of care because "courts would run into difficulty"). Therefore, the standard economic analysis provides the rule that, of the three negligence rule variations, we ought to select one that designates as the residual bearer of harm the party whose activity level most affects the probability of the accident. *See* SHAVELL, *supra* note 5, at 29. Because this person bears whatever harm is created, then she has internalized the costs of inefficient activity levels. If we select a liability model that designates the person whose activity level matters most, then both parties will have the incentive to take optimal care, and at least the more important of the two parties will have the incentive to take the right activity level. This logic applies not just to activity levels but to any preventive behavior by the parties that a court cannot plausibly observe. *See* COOTER & ULEN, *supra* note 52, at 348-49; SHAVELL, *supra* note 5, at 31-32; Shavell, *supra*, at 7, 22-23. This theoretically applies to copyright accidents as well. Ideally we should select the rule that designates the appropriate party as the residual bearer of harm. However, doing so in an informed way seems impossible. There is no apparent reason to assume that either the user's or owner's preventive behavior will consistently have a more significant element of activity levels or other unobservable aspects. Thus there is no clear answer to who should be the residual bearer of the harm. Consequently we leave the issue of activity levels to another day and proceed on the informed assumption that it does not affect the analysis.

C. *Additional Considerations*

Strict liability and negligence rules vary in ways beyond their ability to internalize private costs and benefits of conduct. The liability rules differ in their capacity to take into account positive externalities, administrative costs, and error costs. When we factor these additional concerns into the analysis, the conclusion that a negligence rule is preferable is further strengthened.

1. Third-Party Externalities

Intellectual works often involve significant externalities. Such works typically have effects on others that are not internalized by the person making the work or controlling its exploitation.[108] In part, effects of intellectual works are not internalized because of the inherent constraints of economically exploiting and transacting over intellectual works.[109] In part, these "spillovers" are the result of legal rules specifically designed to avoid full internalization.[110] Externalities are an unavoidable, ever-present feature (and not necessarily a bug!) of intellectual works. But in some contexts intellectual works generate more positive externalities than others.[111] For example, it seems plausible that a mass digitization educational project that offers access to many specific items on open terms to a broad public for no direct charge produces more positive externalities than a computer program whose source code is closely guarded by technological, secrecy, and contractual means and which is offered to a small number of clients for a customized fee and under restrictive licensing terms.

Significant positive externalities may be present on either the copyrighted work side or the user side.[112] An example of the former is a copyrighted computer program that is licensed to the public on open terms for no commercial fee and with its source code open. An example of the latter is a user who is reproducing the copyrighted work as part of a non-commercial,

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[108] *See* Brett M. Frischmann & Mark A. Lemley, *Spillovers*, 107 COLUM. L. REV. 257, 259 (2007).

[109] *See id.* at 285 (explaining that copyright law includes "a variety of leaks and limitations" which promotes "spillovers"); *see also* Julie E. Cohen, Lochner *in Cyberspace: The New Economic Orthodoxy of "Rights Management,"* 97 MICH. L. REV. 462, 544-45 (1998); Lydia Pallas Loren, *Redefining The Market Failure Approach to Fair Use in an Era of Copyright Permission Systems*, 5 J. INTELL. PROP. L. 1, 5-6 (1997).

[110] Frischmann & Lemley, *supra* note 108, at 285.

[111] Note that our analysis below is limited to significant positive externalities of intellectual works and does not apply to cases of significant negative externalities. We think this focus is justified under the assumption that most significant externalities of intellectual works that could plausibly be taken into account within copyright law are positive and that cases of significant negative externalities of intellectual works will be better dealt with, if at all, through external regulation.

[112] *See* Frischmann & Lemley, *supra* note 108, at 262 (giving a broad definition to positive externalities).

mass digitization project, open to the public. The externalities are relevant for our purposes because they may significantly affect the results produced by the various liability rules applicable to copyright accidents. To see this, assume that under a particular liability rule the user and owner will take into account in their calculations only the private value of their actions.[113] Further assume that due to substantial externalities associated with the copyrighted work or the user's action, the public value of either the use or the harm is different than the corresponding private values. The result might be a serious imperfection built into a rule that is otherwise assumed to be optimal. The question is whether anything can be done about these externalities and whether the alternative liability rules are differently equipped to deal with this difficulty.

Under strict liability the user (who is the only party incentivized to take precautions) will fail to take into account positive externalities related to both his use and the owner's work. Ideally, when considering a precaution the user should compare its cost to the public harm of the accident. When the copyrighted work has substantial positive externalities, the private loss of the copyright owner is misaligned with the higher public loss. Assuming full compensatory damages as the remedy, the user will only take into account the private harm, not its greater public effect. One possible response is that courts should correct this distortion by adjusting damages to reflect the public value of the work rather than just the private harm to its owner. This is both highly unlikely to happen and impractical. Courts that already face grave difficulties in calculating damages in cases of intellectual works under a measure of private harm can hardly be expected to be even minimally competent in trying to quantify in dollar amounts the various public externalities associated with such works.[114] The result is that in cases of high positive externalities on the copyrighted work side users will be insufficiently incentivized to invest in prevention. A similar difficulty occurs when it is the user's activity that entails unusually large positive externalities. When the cost of an available precaution is larger than the private value of the use but smaller than both the precaution's preventive benefit to the owner and the public value of the use, then the user will inefficiently forgo the use.[115]

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[113] COOTER & ULEN, *supra* note 52, at 44-45 (explaining that the actor must be forced to internalize externalities in order to achieve efficiency).

[114] *Cf.* NIMMER & NIMMER, *supra* note 11, § 14.02 (outlining the difficulties in determining actual harms).

[115] For example, assume that ascertaining the legal status of photographs to be included in a digitized database costs $10,000, that the expected harm averted by this measure is $12,000 and that the project's private value for the user is $8000. The user's rational choice would be to avoid including the photographs in the database and incurring the opportunity cost of $8000. Ordinarily that would be the optimal outcome. If, however, due to significant externalities bestowed on others the public opportunity cost of withdrawing the photographs is $20,000, the result is suboptimal.

Under a negligence rule the court can adjust the standard of care applied to the user to reflect externalities on both the copyrighted work and the use side. If the user's activity is of the kind that confers large public externalities the court should adjust the value of the user's opportunity cost accordingly when considering a precaution that may result in forgoing the use altogether.[116] This adjustment of the negligence standard will be reflected in the user's behavior. The user has incentive to conform to the adjusted negligence standard in order to shift the expected harm of the accident to the owner. He will not take precautions not required by a standard of care that was lowered to reflect positive externalities of his use. What of cases when the externalities are on the copyrighted work side? Here too a court may adjust the standard of care, this time upward in order to reflect the higher harm expected due to the positive externalities associated with the copyrighted work. However, without adjusting the damages (which we assumed to be impracticable), the adjustment of the standard of care will optimally change the user's behavior only in a subset of the cases.[117] By contrast, the copyright owner's behavior cannot be changed to

[116] In some cases it may be impossible to achieve through this strategy the first best result. This happens when there is a precaution available to the user other than forgoing the use whose cost is lower than the marginal harm averted but higher than the user's private value of his activity. Under these circumstances a user will prefer to forgo his activity and not take the precaution irrespective of adjusting the negligence standard. As long as, due to externalities, the public opportunity cost of the user's activity is larger than the harm averted by forgoing the use, the second best result is for the user's activity to take place even without the precaution. This can be achieved by applying an adjusted negligence standard under which in such circumstances the user is required neither to forgo his action nor to take the relevant precaution.

[117] A user may not change his behavior despite an optimized standard of care because, in the absence of higher damages, the user will not internalize the entire social risk he is causing. For example, assume that a user has an available precaution whose cost is 100 that can prevent a 10% chance of harm of 800. Further assume that after taking into account positive externalities on the side of the copyrighted work, the averted harm is adjusted to 1200. The adjusted standard of care will require the user to invest the 100 in order to avoid the expected harm of 120 (0.1 × 1200). Nevertheless, as long as the damages are not adjusted to reflect the externalities the user will not take the precaution. He will not invest 100 in order to avoid the expected damages of 80 (0.1 × 800). *See* Ariel Porat, *Misalignments in Tort Law*, 121 YALE. L.J. 82, 136 (2011) (assuming when the standard of care is optimal, "injurers will be underdeterred with too-low damages" but will be "optimally deterred with efficient and too-high damages"). Nevertheless, a user may change his behavior in response to a higher standard of care, even if damages are not adjusted when the cost of the precaution is smaller than the entire risk of damages averted by taking it. To illustrate, assume in the example above that the cost of the precaution is 10 and that it will only reduce by 10% rather than eliminate the risk of the harm. The standard of care will require the user to invest 10 in order to reduce the expected harm by 12 (0.1 × 0.1 × 1200). The user will invest 10 in order to avoid being negligent and thereby avoid expected damages of 80 (0.1 × 800). This is a result of the discontinuity of negligence—the fact that

optimally account for externalities under a negligence rule. The owner bears the harm whenever the user is not negligent and as a result he has incentive to take only precautions that are cost effective relative to the private expected harm.

Strict liability with contributory negligence is the negative image of liability in this context. The owner shifts the entire risk of the harm to the user if, and only if, he takes optimal precautions under the contributory negligence standard. Thus in cases of large externalities associated with the work, courts can adjust the contributory negligence standard to reflect the higher value of the expected public harm. Owners seeking to shift the risk will conform their behavior to this adjusted standard, at least in a significant subset of cases.[118] The user, by contrast, will ignore any externalities of the copyrighted work or his use. He will take only precautions that are cost-effective in preventing the private expected harm whose risk falls on him.

Negligence with contributory negligence allows adjusting the user's behavior to better conform with externalities associated with the work and with his use, but it does not allow similar adjusting of the preventive behavior of the owner. The effect on the user here is the same as under negligence. The court can adjust the negligence standard to reflect both externalities of the copyrighted work and, when considering the opportunity cost of the use, significant externalities of such use. By conforming to the adjusted standard, a user shifts the entire risk to the owner and therefore he has a strong incentive to change his behavior accordingly. Things are different on the owner's side. Even if the court adjusts the contributory negligence standard the owner only has incentive to take precautions that are cost-effective relative to the private expected harm. This is so because under this rule the owner is the residual bearer of the harm. Under the assumption that the user would avoid being negligent, the owner expects to bear the harm whether he is contributorily negligent or not. As a result the standard of contributory negligence is immaterial to him. The owner will only take into account the private harm he expects to bear and will take precautions that are cost justified in preventing it.

as long as a user invests in the precautions required by the standard of care his expected risk falls to zero. In many cases this discontinuity of negligence will correct the underdeterrence of adjusting the standard of care upward to reflect externalities without a matching adjustment of damages. On the discontinuity of negligence, see *infra* text accompanying note 135.

[118] As a mirror image of users' behavior under negligence, whether owners respond optimally to adjustments of the contributory negligence standard depends on two countervailing phenomena. Owners may be under-incentivized to take precautions because they only internalize the private harm averted by them. Due to the discontinuity of negligence, however, the total private harm averted by complying with the standard of care will often outweigh the cost of a precaution and as a result owners will take the relevant precaution.

The net result is that strict liability is worst suited for incorporating the effect of positive externalities into the liability rule. It allows adjusting neither of the parties' behavior to be in better sync with externalities associated with either the copyrighted work or the user's activity. Negligence and negligence with contributory negligence are equally amenable to adjusting the user's but not the owner's behavior to be in better (even if not perfect) accord with externalities. And strict liability with contributory negligence allows adjustment of the owner's behavior in light of externalities of his work but not that of the user.

At this point a reality check is in order. Do we really mean to argue that courts could be competent in exactly quantifying the externalities associated with intellectual works and their uses on a case-by-case basis and then fine-tuning the negligence standard on this basis? Do we really mean to suggest that individuals can calibrate their actions to reflect reasonable predictions about the micro-management decisions of courts on such elusive matters? No, we do not. Given the prohibitive cost of accurately quantifying the many complex effects of intellectual works (not to mention the limited institutional capacity of courts), any attempt at such case-by-case evaluation is likely to do more harm by way of administrative and error cost than good in the form of optimal fine tuning of parties' behavior. But conceding this is not necessarily conceding that courts cannot use some rough categorical proxies for cases where very substantial externalities are expected and give some weight to these proxies in their legal analysis. Arguably, taking externalities into account in this rough way is exactly what courts are already doing under the existing fair use doctrine. When determining whether a particular use is fair and therefore non-infringing courts give weight to such factors as whether the use is "transformative,"[119] whether it is for "nonprofit educational purposes,"[120] the extent of "the private economic rewards reaped by the secondary user (to the exclusion of broader public benefit),"[121] and even the outright question of whether the use "provides significant public benefits."[122] The most persuasive rationale of these inquiries is that the factors identified in them function as rough proxies for cases where significant, broadly distributed externalities are associated with the use.[123] In engaging in those inquiries, courts do not purport

[119] *See* Campbell v. Acuff-Rose Music, Inc., 510 U.S. 569, 579 (1994).

[120] 17 U.S.C. § 107(1) (2012).

[121] Am. Geophysical Union v. Texaco Inc., 60 F.3d 913, 922 (2d Cir. 1994); *see also* Twin Peaks Prods, Inc. v. Publ'ns Int'l, Ltd., 996 F.2d 1366, 1375 (2d Cir. 1993).

[122] Authors Guild, Inc. v. Google Inc., 954 F. Supp. 2d 282, 293 (S.D.N.Y. 2013), *aff'd*, 804 F.3d 202 (2d Cir. 2015), *cert. denied* 84 U.S.L.W. 3357 (2016); *see also* Sega Enters. Ltd. v. Accolade, Inc., 977 F.2d 1510, 1523 (9th Cir. 1992); A.V. v. iParadigms, LLC, 544 F. Supp. 2d 473, 482 (E.D. Va. 2008), *aff'd in part*, *rev'd in part*, 562 F.3d 630 (4th Cir. 2009).

[123] *See* Frischmann & Lemley, *supra* note 108, at 288-89.

to quantify the exact magnitude of externalities and draw a matching legal standard in each case. Rather, they rely on reasonable proxy categories for identifying prominent cases of externalities and give some weight to such identification in their legal analysis.[124] Courts applying a negligence standard could follow a similar approach. Indeed they could initially rely on the store of proxy categories already developed in the general fair use context. In practice this approach would have two implications. First, a somewhat higher standard of care would be imposed on either user or owner when a copyrighted work is within a category identified as a reasonable proxy for substantial externalities. Second, when the user's activity is within a proxy category indicating substantial externalities, the court should more carefully consider the user's opportunity cost when examining a precaution that is likely to endanger the use.

At the end, whether such a softer, proxy-based approach to considering externalities as part of the negligence or contributory negligence analysis is desirable remains debatable. To the extent that one is persuaded that such an approach is desirable, strict liability is clearly the standard most ill-suited for its implementation.

2. Administrative Cost

Different liability rules are more or less costly for courts to apply. Strict liability generates the least administrative cost.[125] To decide a dispute under this standard a court needs to determine only that the user engaged in a proscribed conduct. By contrast, each of the alternative rules involves additional inquiries into the negligence of one or both of the parties. A negligence analysis—including both setting the standard and assessing a party's conduct under it—demands much information and is costly to execute.[126] In between the three negligence-based standards, negligence with contributory negligence is the most costly. This standard often requires two negligence determinations, one applied to the user and the other to the owner.[127] Negligence and strict liability with contributory negligence require only one such determination in regard to either the user or owner.

Two factors mitigate the higher administrative cost associated with negligence. First, over time courts are likely to develop proxy categories and rules for identifying negligence.[128] These rules, especially within a stare decisis

[124] *Cf. id.* at 289.

[125] COOTER & ULEN, *supra* note 52, at 360.

[126] *See id.*

[127] When a court determines that the user was not negligent there is no need to determine the owner's contributory negligence.

[128] *See* 1 DOBBS ET AL., *supra* note 2, § 145 (describing how specific rules often supplant the general negligence standard over time); Stephen G. Gilles, *Rule-Based Negligence and the Regulation of Activity Levels*, 21 J. LEGAL STUD. 319, 325-27 (1992).

system, supply guidance to subsequent courts and reduce their decision cost.[129] Over time the accumulation of proxy rules will tend to create a growing well-trodden zone of increased certainty and decreased decision cost. The result of this process is a partial conversion of the open-ended negligence standard into a group of less costly to apply specific rules and mitigation of the standard's high administrative cost.

A negligence standard also generates fewer disputes in need of resolution. This may seem counterintuitive. Because a clear-cut rule such as strict liability is more predictable than a vague standard such as negligence, it makes it easier for parties to settle cases among themselves either with no recourse to litigation or at an early stage of it.[130] The important point in our case, however, is not the formal nature of the legal norm but its substantive content. Strict liability always requires shifting the harm from the owner to the user.[131] This always requires *some* procedure with an associated cost. Even when parties can easily agree on liability, they still need to engage, either through negotiation or litigation, in the often complex calculation of damages, and at a minimum they must have a transaction for transferring the damages. A negligence standard, by contrast, mandates in some cases that the harm remain where it fell. Two implications follow. First, the subset of cases where determining liability is easy or even trivial under negligence is smaller, but in those cases—as when it is clear that the injurer was not negligent or that the victim was contributorily negligent—no additional dispute resolution or transaction is necessary. When parties agree that there is no liability the procedure ends with no further administrative cost associated with calculating or transferring damages. Second, even when a court must resolve a non-trivial negligence question, in the subset of cases where no liability is found further costly resolutions may be spared. In such cases a court can avoid costly and complex determinations such as calculation of damages or, when relevant, questions of fair use, substantial-similarity, and distinguishing ideas from expression. In the subset of cases completely resolved by an application of a negligence standard, these substantial decision costs are eliminated. This offsets at least some of the higher administrative cost of negligence.

[129] *See* Gilles, *supra* note 128, at 323.

[130] *See* Isaac Ehrlich & Richard A. Posner, *An Economic Analysis of Legal Rulemaking*, 3 J. LEGAL STUD. 257, 265 (1974) ("[A]n increase in the predictability of the outcome of litigation should result in an increase in the settlement rate."); Louis Kaplow, *Rules Versus Standards: An Economic Analysis*, 42 DUKE L.J. 557, 573 n.35 (1992) (noting that "greater predictability of outcomes makes litigation less likely").

[131] *See* COOTER & ULEN, *supra* note 52, at 360.

The net result is that strict liability is probably the least costly standard in terms of administrative cost. Yet, as shown, the gap from the negligence-based standards is not as large as may initially appear.[132]

3. Error Cost

Courts applying legal rules and individuals who plan their behavior under them are bound to make errors. These errors will result in suboptimal behavior. Because negligence-based standards are more costly to apply than strict liability, courts and individuals applying them are more prone to error. As a result the error cost associated with the negligence-based rules is higher.[133] Under strict liability a user who always internalizes the value of his precautions is left to decide whether they are cost-effective. He may get it wrong sometimes, but he will not be swayed by an erroneous legal standard applied by courts or by his erroneous prediction of the legal standard. Under negligence, however, there is a standard set by the court that decides when the harm will be shifted from the owner to the user. Given the complexity of the inquiry, courts are likely to err when setting the negligence bar and parties are likely to err in their predictions about it. An error in either direction will distort the incentives: too high a bar will cause a user to take non-cost-effective precautions in order to shift the harm; and too low a bar will cause him to avoid cost-effective precautions.[134] The reason is the discontinuity in the user's risks created by negligence. Under negligence a user who fails to meet the standard of care is liable for the entire damage caused and one who meets it is liable for none of it.[135] As a result, when the standard of care is too low users can eliminate their risk even without taking those cost-effective precautions that are not required by the standard. Why would users invest in non-cost-effective means required by a too high standard of care? Because meeting the standard relieves a user not just of the marginal risk averted by the precaution, but of the entire risk of his activity.[136] Thus, in the presence of error in setting the standard of care negligence results in under and overdeterrence.

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[132] *See id.* ("In summary, a rule of strict liability results in more claims that are simpler to settle, whereas a rule of negligence results in fewer claims that are more complicated to settle.").

[133] *See* COOTER & ULEN, *supra* note 52, at 356-58; SHAVELL, *supra* note 5, at 79-83 (describing the uncertainty, error, and misconception that surrounds negligence findings and its effect on preventative behavior).

[134] SHAVELL, *supra* note 5, at 83. The same is true of errors in setting the contributory negligence standard applicable to the copyright owner under a rule of strict liability with contributory negligence.

[135] *See* ROBERT D. COOTER & ARIEL PORAT, GETTING INCENTIVES RIGHT: IMPROVING TORTS, CONTRACTS, AND RESTITUTION 20-25 (2014) (explaining and showing by way of example that "a rule of negligence causes discontinuity in liability").

[136] For example, if required by the standard of care, a user would invest 10 in order to reduce by 10% a 10% risk of damage of 800. Meeting the standard of care shifts the entire

However, strict liability should not too hastily be proclaimed as superior here because such rules are more prone to erroneous damage calculations. In copyright cases, often the measure of damages will be different from exact compensatory damages. This may happen because of the notorious difficulties in calculating the value of intellectual works compounded by the difficulties of assessing the harm inflicted on such works.[137] Alternatively, the damages may diverge from compensatory damages because the law allows the plaintiff to opt for different measures such as disgorgement of profits or statutory damages.[138] Under strict liability a user's preventive behavior is highly sensitive to consistently erroneous damage calculations by courts or to erroneous predictions about such calculations.[139] Under this rule the user always internalizes the harm, or, more accurately, he internalizes the value of expected damages. Thus, consistently erroneous damages will affect the user's calculus of cost-effective precautions. Too high damages will cause overinvestment and too low damages will cause underinvestment.[140]

Negligence rules are not nearly as sensitive to erroneous damages decisions.[141] Here the discontinuity created by negligence is a blessing. With an optimal standard of care, too high damages will not create overdeterrence.[142] When the cost of the precaution is higher than its marginal benefit the user is not liable, which means that he shifts the entire risk even without taking the precaution and the high damages will have no effect on his behavior. What about too low damages? In principle, too low damages may cause underdeterrence even with an optimal standard of care.[143] Yet in many cases the discontinuity of negligence prevents this effect.[144] The user shifts the entire expected harm to the owner upon satisfaction of the standard of care. Thus from his perspective the benefit of a cost-effective precaution is not just the measure's marginal reduction of the harm's expectancy, but rather, the entire harm expectancy. And this will often outweigh the effect of too low

risk away from the user and therefore eliminates for him a risk of 80 (0.1 × 800), but the expected damage is only reduced by 8 (0.1 × 0.1 × 800).

[137] *See* NIMMER & NIMMER, *supra* note 11, § 14.02 (computation of actual damages); Jody C. Bishop, *The Challenge of Valuing Intellectual Property Assets*, 1 NW. J. TECH. & INTELL. PROP. 59 (2003).

[138] *See* 17 U.S.C. § 504(a) (2012). One could argue that because of evaluation and enforcement difficulties these alternative measures of damages actually serve as proxies for compensatory damages, but this does not alter their inaccuracy.

[139] COOTER & ULEN, *supra* note 52, at 354.

[140] *Id.* at 354, 358. The same is true of strict liability with contributory negligence.

[141] *Id.*

[142] *See* Porat, *supra* note 117, at 136 (explaining that when the standard of care is optimal injurers will be optimally deterred with "efficient and too-high damages").

[143] *See id.*

[144] *Cf.* COOTER & ULEN, *supra* note 52, at 354.

damages.[145] For example, the combination of precautions that would make a user non-negligent may cost $1000 and reduce an expected harm of $11,000 by 10%. In the face of expected erroneous damages of $9000, the benefit of the efficient measure to the user is not its supposed marginal reduction of the expectancy of damages by $900. It is rather eliminating the expected damages of $9000 altogether. As a result the user will take the efficient precaution. Only in very extreme cases, where the miscalculation of damages is so gross that the entire sum of expected damages is below the cost of a precaution, an underinvestment in prevention will follow.[146]

It is very difficult to assess which error cost—erroneous damage calculations or erroneous legal standards—is more significant. Negligence determinations are complex and error-prone in the copyright context. But so are damages evaluations.[147] Until we have more information on the effects of these different types of errors, the consideration of error costs produces no clear result or perhaps gives strict liability only a very slim advantage over its competitors.

D. *Taking Stock*

We compile the competing costs and benefits of the various alternative liability rules into the following matrix.

[145] *Cf. id.*

[146] In the example in the text the miscalculated expected damages would have to be below $1000.

[147] It would be a tiebreaker if we could say that damages assessments in copyright are predictably random in their direction and magnitude. In such a case a user's expected damages would be roughly the same as the expected harm and the distortive effect of erroneous damage award will be minimal. COOTER & ULEN, *supra* note 52, at 357. Under such circumstances the distortive effect of an erroneous standard of care under negligence would be significantly more substantial than the distortive effect of erroneous damages awards under strict liability. *Id.* There is, however, no particular reason to think that courts' damages errors in copyright are predictably random in the sense of being equally distributed around accurate compensatory damages.

Table 1

	User internalizes value of precautions	Owner internalizes value of precautions	Externalities internalized in precautions	Administrative cost	Error cost
Strict	Yes	No	No	Low	Moderate
Negligence	Yes	Yes	User only	Moderate	Moderate
Strict + Con. Neg.	Yes	Yes	Owner only	Moderate	High
Negligence + Con. Neg.	Yes	Yes	User only	High	High

When the various dimensions of the foregoing analysis are aggregated, strict liability does not fare well. On the most important metric of generating optimal incentives to both user and owner in a bilateral situation, strict liability is inferior. It only incentivizes precautions by the user, while all the three other standards equally motivate both parties to take optimal precautions. To the extent one thinks that courts can plausibly take account of externalities via rough proxy categories, strict liability is again the least adequate standard. Each of the other standards allows some incentive to one of the parties to take account of externalities by adjusting the negligence standard applicable to him. Strict liability allows for such adjustment in regard to neither user nor owner. Strict liability generates the least administrative costs because it requires no application of a costly negligence standard. The administrative costs generated by the other standards are mitigated to some extent, however, by the development of proxy rules and by the smaller number of disputes requiring decision. Finally, the consideration of error cost showed no conclusive superiority in between negligence and strict liability. While the former creates costs attributable to erroneous negligence determinations, the latter creates more cost attributable to erroneous damages awards. Negligence clearly emerges then as preferable overall to strict liability. It lags somewhat behind on administrative costs, but it is superior on the primary consideration of optimal prevention incentives as well as in regard to the secondary consideration of externalities.

How does negligence do relative to its two other negligence-based rivals? While equal to strict liability with contributory negligence in other respects, negligence is superior to it in regard to error cost. Strict liability with contributory negligence suffers from two types of error cost. The preventive

incentives of users, who are strictly liable, are highly sensitive to erroneous damages awards and the preventive behavior of the owner is susceptible to errors in the negligence standard applicable to him. By contrast, negligence suffers only from the cost generated by errors of the negligence standard applied to the user.

Negligence is also superior to negligence with contributory negligence in two respects. The latter rule generates more administrative cost because it often requires two costly negligence analyses, one per each party. For similar reasons, negligence with contributory negligence also generates more error cost than negligence. While negligence is only susceptible to the cost of an erroneous standard of care applied to the user, negligence with contributory negligence suffers from the cost of erroneous standard of care decisions in regard to both user and owner.

One last respect in which negligence is preferable to the other negligence-based standards is its effects in sequential prevention situations. Our bilateral analysis assumed that the actions of the user and the owner are exogenous to each other. What, happens, however, when one of these parties is aware of the other's actions when taking his precautions? Under negligence, an owner who is aware of a user's negligence knows that the harm will be shifted to the user and therefore he inefficiently has no incentive to take cost-effective precautions.[148] Under the two other standards the reverse is true. A user who is aware of contributory negligence by the owner knows the harm will be borne by the owner and therefore inefficiently has no incentive to take cost-effective precautions. Which of these symmetrical distortions is more worrisome? A plausible argument is that in the copyright context sequential situations in which a user is the later in time actor are more common. Typically, the owner gets his opportunity to take precautions at an earlier stage as in the case of attaching notice, registering the work, or taking action against a third party who misrepresents the work's legal status. The user gets an opportunity to take precautions at a later stage, sometimes with knowledge of the owner's actions or lack thereof. This is not always the case, but it is likely the more common pattern of sequential situations. As a result, to the extent one thinks that the potential distortions associated with sequential situations are significant, negligence is preferable because owners typically act first. Compared to its two alternatives, negligence is the standard that produces no distortions in the more significant subset of sequential cases.

E. *Equitable Cultural Risk Allocation*

Efficiency is the dominant normative framework in copyright. Yet it is neither the only normative framework nor necessarily the most attractive one. In this Section we shift our lens to three alternative normative theories that

[148] On sequential decisionmaking to the choice of liability rule, see LANDES & POSNER, *supra* note 69, at 76-77, and SHAVELL, *supra* note 5, at 15 n.14.

bear a family resemblance. They are: self-determination, cultural democracy, and human flourishing. Like efficiency, these approaches normatively assess legal rules on the basis of a comprehensive consideration of all the consequences that follow from such rules.[149] Unlike efficiency, these approaches do not simply try to maximize a total social sum of one good measured by a single scale (e.g., wealth). Instead, each of these approaches starts with an account of a political-moral ideal from which follow various desiderata.[150] These desiderata cannot always be placed on a single scale, in the sense that their values cannot simply be quantified by a common measure and then straightforwardly traded off against each other, especially not across individuals.[151] In some instances, a particular desired end may stand in a relationship of clear normative ascendance over the others, while in other cases a rougher judgment of priorities may be needed.[152] One thing, however, that all three theories share in common is a concern about equitable risk allocation in the cultural sphere.[153] Each approach, albeit for its own somewhat distinct reasons, places a high premium on ensuring that opportunities for effective participation in cultural creation remain broadly open and widely distributed among all individuals in society. The accident risk associated with cultural creation must be allocated in a way that is conducive to this purpose. The upshot of this principle of equitable allocation of cultural risk is a thumb on the scale in favor of negligence. Relative to efficiency, the principle provides stronger support to a negligence limitation on liability in copyright accident cases. It also cuts in favor of setting a standard of care that is friendlier to users.

We elaborate here briefly on the gist of each of the theories, how each gives rise to the concern of equitable allocation of risk in the cultural sphere, and the implications of this concern for the appropriate liability rule in copyright accidents.

Self-determination focuses on the ideal of genuine free choice, sometimes described as being the author of one's own life.[154] Two elements are crucial for obtaining this goal. The first is endowing individuals with a meaningful

[149] *See* Oren Bracha & Talha Syed, *Beyond Efficiency: Consequence-Sensitive Theories of Copyright*, 29 BERKELEY TECH. L.J. 229, 245-46 (2014).

[150] *Id.* at 246-47.

[151] *Id.* at 284-85.

[152] *Id.* at 262 (giving an example from the self-determination approach).

[153] We are indebted to Talha Syed for insights on the basis of which we develop the concept of equitable allocation of cultural risk. The responsibility for the analysis offered here is on us alone.

[154] *See id.* at 251-52 & nn.58-64. For application of self-determination to copyright, see YOCHAI BENKLER, THE WEALTH OF NETWORKS 133-75 (2006), and Yochai Benkler, *Siren Songs and Amish Children: Autonomy, Information, and Law*, 76 N.Y.U. L. REV. 23, 41-57 (2001).

measure of effective agency, meaning the positive ability to define and pursue their life paths (as opposed to just "negative" freedom from coercion).[155] The second is fostering conditions under which such individual choices are free and rational. These conditions include a meaningful variety of available choices, possession of the capacity and tools for reflectively forming and critically revising one's own conception of the good, and the ability to rationally create a life plan for realizing it.[156]

A *cultural democracy* approach involves two extensions of the self-determination ideal.[157] First it recognizes that some decisions that may be fundamental for individual lives are "inherently collective" in nature—they are made and pursued collectively through the interaction of many individuals.[158] Second, cultural democracy assumes that the realm of such collective decisions extends well beyond the formal political sphere into the realm of culture broadly defined.[159] It conceives culture as the sphere of meaning that defines individual identities, ideals, and goals.[160] Cultural creation is a dialectical process in which socially-constructed individuals take part in shaping the "semiotic fog" of culture that in turn shapes their own subjectivity as well as that of others.[161] Two implications follow from this extension of self-determination: (a) that the conditions for genuine free choice must be fostered in this realm of collective "decisions" through culture; and (b) that this process must have a measure of semantic equality that allows all individuals a roughly equal opportunity to participate in and influence cultural collective decisions.[162]

A *human flourishing* approach starts with a more substantive, affirmative account of the good life—of the conditions for living a fulfilling human life

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[155] *See* GERALD DWORKIN, THE THEORY AND PRACTICE OF AUTONOMY 18 (1988).

[156] *See* JOSEPH RAZ, THE MORALITY OF FREEDOM 377-78 (1986).

[157] For applications of cultural democracy to copyright, see, for example, MADHAVI SUNDER, FROM GOODS TO A GOOD LIFE: INTELLECTUAL PROPERTY AND GLOBAL JUSTICE (2012); Jack M. Balkin, *Digital Speech and Democratic Culture: A Theory of Freedom of Expression for the Information Society*, 79 N.Y.U. L. REV. 1, 16-18, 34 (2004); Rosemary J. Coombe, *Objects of Property and Subjects of Politics: Intellectual Property Laws and Democratic Dialogue*, 69 TEX. L. REV. 1853, 1866 (1991); Niva Elkin-Koren, *Cyberlaw and Social Change: A Democratic Approach to Copyright Law in Cyberspace*, 14 CARDOZO ARTS & ENT. L.J. 215, 295 (1996).

[158] *See* Bracha & Syed, *supra* note 149, at 252-53.

[159] *Id.* at 254.

[160] *Id.* at 255 ("[The] irreducibly interactive or social processes through which meanings are forged, communicated, enacted, interpreted, adapted, challenged, revised, recombined, and so forth.").

[161] *See* Balkin, *supra* note 157, at 35; William W. Fisher III, *The Implications for Law of User Innovation*, 94 MINN. L. REV. 1417, 1458-59 (2010) (describing "semiotic power" as "control over the fog of symbols in which we move and with which we define ourselves").

[162] Bracha & Syed, *supra* note 149, at 255-56.

and realizing the needs or capabilities of human beings.[163] It identifies several dimensions of a good life and insists that fostering the conditions under which all individuals have a meaningful opportunity to enjoy these dimensions in their lives is an essential feature of the good society.[164] As applied to the cultural sphere, it is possible to synthesize three main dimensions of the good life shared by most variants of this approach: self-determination, roughly incorporating the approach described above; meaningful activity, meaning an activity in which one's human physical or cognitive capacities are highly engaged and developed in a manner involving challenge, discipline, and intrinsic reward; and sociability, meaning taking part in relations and activities whose character and meaning are established communally through interaction with others and which involve intrinsic value as well as constitution of one's sense of self.[165]

All three approaches share an important feature. They all place normative value on certain goods or conditions that are different from, are prioritized over, subjective welfare. One way of describing this is saying that a normative premium is attached to certain consequences generated by the rules of copyright (i.e., those related to the ability of individuals to make free choices about their life paths, those related to the level of semantic equality in the cultural sphere, and those related to central dimensions of human flourishing). Effects of this kind are not placed on a common scale with subjective welfare. Nor are they directly traded off against welfare effects.[166] In fact, the typical relationship between these prioritized goods and welfare is lexical priority. It does not follow, however, that evaluation of the effects of copyright on these goods is free from any cost/benefit analysis or specifically from copyright's fundamental incentive/access tradeoff. The conflicting effects of copyright, including its incentive-benefits and access-costs, usually affect the prioritized goods themselves. This means that any normative evaluation still requires a tradeoff, but one that now focuses on the effects of copyright rules on a normatively prioritized good. This internal calculus may be different than the general welfare-maximization one, but it is still a tradeoff.[167]

How does all of this relate to copyright accidents? When they are applied to the copyright context, one major concern shared by all three theories, each for its own reasons, is a principle of equitable allocation of cultural risk. Simply stated, the principle is that the risk of copyright infringement should be allocated in a way that is conducive to robust opportunities for cultural creation

[163] For applications of human flourishing to copyright, see *id.* at 256-58; Fisher, *supra* note 161, at 1463-72; Fisher, *supra* note 59, at 1744-66.

[164] *See* Bracha & Syed, *supra* note 149, at 256.

[165] *Id.* at 256-57; Fisher, *supra* note 59, at 1747-50.

[166] Bracha & Syed, *supra* note 149, at 261-62, 265-66, 278-81, 284-85 (giving examples of this for each approach).

[167] *Id.* at 247.

widely dispersed among all members of society. Self-determination has a stake in such broad distribution of creative opportunities because being able to live creative lives either as professionals or amateurs is likely to be central to the fundamental life path choices of some individuals.[168] Human flourishing, for its part, prioritizes opportunities for meaningful activities. In the cultural sphere such meaningful activity usually involves expressive, creative enterprises undertaken by individuals either as amateurs or as professionals.[169] Taking part in the myriad of cultural outlets, such as fan fiction, mashups, sampling, or independent filmmaking, is where most opportunities for meaningful activities (and often for sociability) exist.[170] Finally, cultural democracy provides a strong support for the most comprehensive and systematic ideal of broadly dispersed opportunities for cultural participation. A major principle of this outlook is semiotic equality. Seeing cultural production as a collective subjectivity-shaping process—one that influences the life of all members of society—requires that the self-determination interest of all individuals be given equal concern. The concern is not just, as under self-determination, for an individual's power to shape his own subjectivity, but for his power to take an equal part in the collective process of shaping the subjectivity of others. This leads, in turn, to the requirement of roughly equal power to all to effectively participate in and influence the cultural meaning-making process. Note that the gist of this requirement is *relative* equality.[171] What matters is that all individuals have equal cultural influence relative to each other, in contrast to the semiotic division of power dictated by market forces or by various background inequalities in society.[172] Realizing this demanding ideal, at least in part, requires widely dispersing opportunities for effective cultural participation and reducing barriers that lead to unequal division of semiotic power.

There are many factors that influence the availability and distribution of creative opportunities on both a professional and amateur basis. One important factor directly related to the law of copyright accidents is the degree of risk associated with cultural creation. As we have seen, expressive creation necessarily carries with it the risk of copyright accidents. How this risk is allocated will affect both the overall level of opportunities for creative

[168] *See id.* at 285-86, 286 n.186 (discussing the prioritization given by self-determination to uses of copyrighted works that are necessary for urgent personal interests); *see also* Yochai Benkler, *Networks of Power, Degrees of Freedom*, 5 INT'L J. COMM. 721, 749 (2011) (discussing "the expressive and cultural freedom of fans to make their own meaning of (and with) the professionally and commercially produced cultural materials that surround them").

[169] *See* Bracha & Syed, *supra* note 149, at 286-87.

[170] *See* Fisher, *supra* note 161, at 1418-22, 1430.

[171] *Cf.* Bracha & Syed, *supra* note 149, at 255-56.

[172] *See id.* at 265-66.

engagement with culture and how these opportunities are distributed. The accident risk associated with a creative undertaking is one of its costs. The higher the share of the risk placed on the shoulders of a potential creator, the higher is the barrier for his activity. Put simply, one is less likely to create when he incurs higher risk of having to bear the loss caused by an accident or has to take costly preventive measures.

Risk also has distributive implications because creators are differently situated to manage it. A large, commercial, repeat player is typically better situated to manage the risk of copyright accidents associated with its creation compared to small creators. Economies of scale applicable to such repeat players allow them to better reduce and manage the risk to which they are exposed. Compare a large studio producing a multi-million dollar budget movie to an independent documentary maker working on a tight budget. Clearing of rights, deep inspection of the film for accidental infringement, professional legal advice, and error and omissions insurance may all be cost effective for the former but beyond the reach of the latter.[173] In their important study of the effects of the copyright clearance culture on documentary makers, Patricia Aufderheide and Peter Jaszi quote one filmmaker's frustrating experience with the "hoop jumping" involved: "There are so many lawyers and agents and managers, those levels of buffers I would call them, between you and the creative people who create these other rights that you need to utilize. Sometimes it's just impossible to get to them."[174] Large repeat players with extensive budgets are much better situated to jump through these hoops, from getting one's phone call returned to being able to pay a flat non-negotiable fee. Thus in the realm of copyright the risk of accidental infringement laid on the shoulders of users is distributed unequally. To increase both the availability of creative opportunities and their equal distribution, the principle of equitable cultural risk allocation supports significantly limiting the share of copyright accidents risk imposed on creators.

Importantly, the principle of equitable risk allocation provides stronger support than efficiency for limiting the risk of copyright accidents imposed on creators. Efficiency, as demonstrated by our analysis,[175] equally weighs all the countervailing welfare effects of a particular allocation of risk through liability rules. Under the three normative theories underlying it, equitable risk allocation gives priority to the interest of robust and equal opportunities for

[173] For example, see the concerns and difficulties of accidental infringement faced by independent documentary filmmakers described in AUFDERHEIDE & JASZI, *supra* note 6, at 94-96.

[174] PATRICIA AUFDERHEIDE & PETER JASZI, CTR. FOR SOC. MEDIA, UNTOLD STORIES: CREATIVE CONSEQUENCES OF THE RIGHTS CLEARANCE CULTURE FOR DOCUMENTARY FILMMAKERS 11 (2004), http://www.cmsimpact.org/sites/default/files/UNTOLDSTORIES_Report.pdf [https://perma.cc/DN2E-F83W].

[175] *See supra* Sections II.A, II.B, II.C.

creation over welfare effects. This means that a legal rule is justified whenever compared to alternatives it significantly increases broad creative opportunities, even when it results in a net increase in the cost of accidents (i.e. their harm of reduced incentives plus investment in prevention means). For example, a risk allocation that results in numerous, different sized producers of music is preferable to one that results in a creative space controlled by relatively few producers of music, even if the latter alternative results in a higher overall market value of music produced and a lower cost of preventive measures taken.

This does not mean that the principle of equitable allocation of risk universally supports any measure that transfers risk of accidents from users to owners. Because the countervailing effects of shifting risk influence the prioritized principle of broad and equal opportunities for creation, there is an optimal balance of risk allocation internal to that principle. Risk allocation internally affects opportunities for creation in two dynamic ways. Backward looking, shifting risk to copyright owners is bound to reduce their incentive to create and therefore the stock of materials available to users. For example, bearing a lower share of the risk of accidents created by their films reduces the cost barrier to documentary makers, but it also reduces, to some extent, the existing pool of music, images, or clips they can incorporate in their films. Forward looking, creators who enjoy the benefits of reduced accident risk are also copyright owners in their own creations. In this capacity they suffer the negative effect of shifting risk to owners in regard to exploitation of their works. The documentary maker who faces a lower cost barrier also bears a greater share of the risk of accidental infringement of his own film by others. Note that this countervailing cost may apply even to creators who have little interest in commercial exploitation of their work. A contributor to a peer-production-based open code programing project may care little about any commercial effects of others accidently using the code she produced. Yet her decision to create may be significantly affected by the knowledge that others who do so accidently may incorporate her code into proprietary commercial code or use it without attribution.[176] Because of these two dynamic ways in which reallocation of risk to owners negatively affects users, the principle of equitable allocation of risk does not lend unmitigated support for any shift of accident risk in that direction. It is doubtful, for example, that the principle justifies a rule of no liability in any case of accidental copyright infringement. Still, the cost/benefit balance internal to the principle of equitable risk allocation justifies greater shifting of the risk to owners relative to that justified by efficiency.[177]

[176] Jeanne C. Fromer, *Expressive Incentives in Intellectual Property*, 98 VA. L. REV. 1745, 1790-98 (2012) (arguing that "attribution can serve as an expressive incentive").

[177] The reason is that small creators are likely to bear a disproportionately small share of the overall cost and a disproportionately large share of the benefit of reducing the risk of

The principle of equitable risk allocation has two implications for the analysis of the appropriate liability rule in accident cases. First, the case for negligence compared to strict liability under it is stronger. Compared to strict liability, negligence shifts a considerable part of the cost of accidents from users to owners. Under strict liability users will invest in cost-effective precautions and will bear the ex post cost of accidents not prevented. Under negligence users will still invest in cost effective precautions, but they will not bear the remaining cost of accidents caused by them despite taking such means. For reasons just explained, the principle of equitable allocation of risk provides strong support for such reallocation of risk. This support remains firm, even if one believes that, contrary to our conclusion above, efficiency's delicate comparison of all costs and benefits of liability rules produces only an inconclusive or weak case for negligence. Second, the principle of equitable allocation of risk supports some tweaking of the standard of care under a negligence rule. As we argued above, courts can hardly be expected to engage in fine calculations of dollar amounts attached to potential precautions.[178] Under a negligence standard, courts will engage in rough estimates of the overall reasonableness of precautions within their competent sphere of knowledge. Because of its stronger support for shifting accident risk from users to owners, the principle of equitable risk allocation will cut against finding that a user was negligent even when under an efficiency criterion the case is close, inconclusive, or even favoring negligence by a thin margin. At a minimum, equitable risk allocation will mandate erring on the side of caution, against finding a breach of the standard of care, when the case is very close under an efficiency analysis.

copyright accidents. A full defense of this assumption is beyond the scope of this Article, but a short explanation of why we believe it is well founded is as follows. On the cost side, the two negative dynamic effects of reducing the risk of accidents borne by small creators are likely to be of a smaller magnitude compared to the overall negative effects of such reduction. Consider the negative effect on the incentive to create original works first. Some marginal, original works may not be created and their consumptive value may be lost if the risk borne by copyright owners is increased. But it is very doubtful that such a marginal effect would have any meaningful influence on the scope and diversity of materials available for secondary use by small creators. As for the forward-looking incentive effect on small creators, many of these creators are likely to be less sensitive to the risk of their own works being accidently used. This is true for a variety of reasons including the smaller likelihood of accidental use of such materials and the typically more diverse motivations for their creation. On the benefit side, small creators who often are less well situated to deal with the risk of accidently infringing another's copyright will be reaping a greater benefit from reducing the risk borne by them.

[178] *See supra* text accompanying notes 125-36.

III. WHAT SHOULD BE DONE?

The previous Part developed two normative justifications for adopting a negligence standard in relation to copyright accidents. A negligence rule is justified by efficiency reasons primarily because it would incentivize both copyright owners and users to invest optimally in precautions against accidental infringement. The principle of equitable allocation of cultural risk provides even stronger support for a negligence rule. However, the question remains, how could such a standard be incorporated into copyright law?

This Part transitions from theory to practice. Section A examines three potential mechanisms for implementing a negligence rule in copyright: (1) adding an independent negligence element to the prima facie infringement action; (2) modifying the fair use doctrine; and (3) creating a system of rules that serve as proxies for negligence. This Section finds that modifying the fair use doctrine is the optimal mechanism for implementation. Section B explains exactly how fair use could incorporate a negligence test. Finally, Section C demonstrates how the negligence infused fair use doctrine would apply to a number of real-world cases.

A. *The Implementation Options*

While each of the options for implementing a negligence rule has certain merits, this Section finds the optimal way to introduce a negligence rule into copyright is by modifying the fair use doctrine. This option is both the most realistic and conceptually the most attractive given that fair use already embodies a consequentialist balancing analysis.

1. The Prima Facie Case

The first option is to include negligence as an element of the prima facie test for copyright infringement. Currently, to establish a case of copyright infringement, the plaintiff need only prove: (1) ownership of a valid copyright, and (2) infringement of an exclusive entitlement including both copying in fact and improper appropriation of protectable elements.[179] Incorporating a negligence standard into the prima facie case would involve adding a third element. In cases of accidental infringement, the owner would be required to prove also that the defendant failed to take reasonable care to prevent the infringement. The Hand formula, as explained above, would determine whether a given precaution is reasonable.[180] For example, in the case of the documentary filmmaker who accidentally infringed a copyright, whether she would be liable depends on whether the marginal cost of available

[179] *See* Feist Publ'ns, Inc. v. Rural Tel. Serv. Co., 499 U.S. 340, 361 (1991); *see also* Arnstein v. Porter, 154 F.2d 464, 468 (2d. Cir. 1946). *See generally* GOLDSTEIN, *supra* note 81, § 9.1; NIMMER & NIMMER, *supra* note 11, § 13.01.

[180] *See supra* note 70 and accompanying text.

precautionary measures—such as forgoing the use or attempting to overcome the uncertainty—is smaller than the marginal benefit in reducing the expected harm.

The main advantage of this proposal is simplicity. If we are to adopt a negligence requirement in copyright, adding it to the prima facie case is the cleanest and most obvious way to reach that goal. Adding this element is consistent with the usual practice of tort law and would not require the modification or alteration of any of the existing elements of the copyright infringement action.[181] The only change would be that, in a subset of cases where the use substantially presents a risk of infringement rather than a certainty, the plaintiff would need to prove the extra negligence element.

However, this option also has serious drawbacks. As a pragmatic matter, it is highly unlikely that either courts or Congress will mandate such a change. Courts have imposed liability for copyright infringement strictly for a century.[182] The two-prong test for copyright infringement has been used by courts for decades and was sanctioned by the Supreme Court.[183] Changing the test now would accordingly run counter to a very substantial body of precedent and established practice such that courts are likely to resist such a change. It is even harder to envision Congress taking action on this matter. Congress has shown reluctance in recent years to step in and solve problems in copyright in a principled way.[184] Moreover, Congress has traditionally treated the definition of infringement, its scope, and the test for its occurrence as the domain of courts. Other than defining the basic bundle of rights and outlining ad hoc defenses and exemptions, Congress has never legislated on the basic contours of copyright infringement.[185] It can be hardly expected to do so now in a way that breaks with long-established practice.

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[181] Torts based on negligence typically require that the plaintiff prove negligence as part of the prima facie case. *See* 1 DOBBS ET AL., *supra* note 2, § 124; GOLDBERG & ZIPURKSY, *supra* note 2, at 72.

[182] As noted earlier, early copyright regimes did require fault in some circumstances and adopted measures that reduced the chances of accidental infringement. *See supra* note 13 and accompanying text. This began to change during the end of the nineteenth and early twentieth century. The Copyright Act of 1909 abandoned categories of infringement that required knowing action. *See* Reese, *supra* note 13, at 178-79. The Supreme Court announced definitively in *Buck v. Jewell-LaSalle Realty Co.* that "[i]ntention to infringe is not essential under the Act." 283 U.S. 191, 198 (1931). *See generally* Reese, *supra* note 13, at 179.

[183] *Feist Publ'ns*, 499 U.S. at 361.

[184] *See* Maria A. Pallante, *The Next Great Copyright Act*, 36 COLUM. J.L. & ARTS 315, 319-20 (2013) ("Congress primarily has made minor adjustments or technical corrections in recent years.").

[185] The Copyright Act of 1976 says only that one who "violates any of the exclusive rights of the copyright owner as provided by sections 106 through 122 . . . is an infringer." *See* 17 U.S.C. § 501(a) (2012). This provision tells us nothing about whether liability should

This option also presents conceptual problems. The existing fair use doctrine already contains some elements similar to those of the negligence analysis.[186] As a result, adopting a negligence standard into the prima facie case would require the court to perform two similar inquiries at two different stages of the litigation. To establish infringement, the plaintiff would be required to show negligence. This would require proving that the marginal cost of precaution (including the opportunity cost of forgoing defendant's action altogether) would be less than the averted marginal expected harm to the owner. If successful, the burden would then shift to the defendant to prove fair use. Under which, the defendant would now be required to show that the harm caused to the owner by the use was less than the lost value of the use if it had to be licensed.[187] Under both tests, the court would be required to assess the harm the plaintiff suffers and the value of defendant's use. The doctrines would clearly not be completely duplicative. In particular the negligence analysis, unlike fair use, would assess the *expected* harm as discounted by the probability of its occurrence and the cost of preventive measures other than the opportunity cost of forgoing the defendant's use. However, there is sufficient conceptual overlap that such a structure would be confusing, partially redundant, and cumbersome to apply.

2. Fair Use

The second option is to modify the fair use doctrine. Fair use exempts from liability otherwise infringing actions that are found to be fair under a four-factor, case-by-case analysis.[188] As already discussed, the negligence and

be imposed strictly or on the basis of fault. Furthermore, the Copyright Act of 1909 had no such definition. *See* H. COMM. ON THE JUDICIARY, 89TH CONG., COPYRIGHT LAW REVISION PART 6: SUPPLEMENTARY REPORT OF THE REGISTER OF COPYRIGHTS ON THE GENERAL REVISION OF THE U.S. COPYRIGHT LAW: THE 1965 REVISION BILL 131 (Comm. Print 1965) (explaining that it was "strange, though not very serious" that the 1909 Act lacked "any statement or definition of what constitutes an infringement" and proposing the present § 501(a) as rectification).

[186] *See* Goold, *supra* note 22, at 338-56.

[187] On the nature of fair use, see Gordon, *supra* note 51, at 1601 ("[C]ourts and Congress have employed fair use to permit uncompensated transfers that are socially desirable but not capable of effectuation through the market."); Lunney, *supra* note 72, at 977-78 (fair use is invoked unless "the net benefit to society will be greater if a use is prohibited").

[188] 17 U.S.C. § 107 ("In determining whether the use made of a work in any particular case is a fair use the factors to be considered shall include—(1) the purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes; (2) the nature of the copyrighted work; (3) the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and (4) the effect of the use upon the potential market for or value of the copyrighted work."); *see also* Pamela Samuelson, *Unbundling Fair Uses*, 77 FORDHAM L. REV. 2537, 2540 (2009) (discussing the "fact-intensive, case-by-case nature of fair use analysis").

fairness analyses are both consequentialist balancing tests that share many elements. They currently differ in that negligence takes into account expected harm as discounted by risk and the cost of precautions beyond simply forgoing the use. But the fair use doctrine could be easily altered to fit the negligence paradigm. Simple tweaks to the existing doctrine to enable courts to trade the expected harm as discounted by probability of harm off against the cost of precaution would amount to incorporation of a Hand Formula. Thus, while the similarity of the negligence and fairness doctrines is a problem for option one, it is a positive boon to option two. We show later exactly how these changes could be accomplished.[189]

Incorporating negligence into fair use presents a realistic possibility. The fair use doctrine is an "equitable rule of reason" with common law origins.[190] Courts not only created the doctrine but, in recent times, have shown willingness to adapt its contours to suit various socioeconomic realities and normative concerns.[191] For example, the transformative use criterion only became incorporated into fair use law in 1994 following the Supreme Court's decision in *Campbell v. Acuff-Rose Music, Inc*.[192] Subsequently this has become the most important factor in the analysis.[193] This was a significant change but one that was introduced gradually and with minimal shocks to the system.[194] Furthermore, Congress expressly enabled courts to mold and tailor the fair use doctrine in this way.[195] Congress shied away from defining fairness in precise terms or providing an exclusive list of factors.[196] Instead Congress preferred that courts adapt the doctrine to changing conditions.

One ostensible drawback of incorporating negligence into fair use is the fact that the burden of proof would most likely fall on the defendant. In tort actions, the plaintiff usually carries the burden of proving the defendant's

[189] *See infra* Section III.B.

[190] Sony Corp. of Am. v. Universal City Studios, Inc., 464 U.S. 417, 448 (1984).

[191] NIMMER & NIMMER, *supra* note 11, § 13.05 ("[F]air use is unique in that the U.S. Supreme Court has repeatedly addressed its contours.").

[192] 510 U.S. 569 (1994).

[193] Neil Weinstock Netanel, *Making Sense of Fair Use*, 15 LEWIS & CLARK L. REV. 715, 715 (2011) (finding "the transformative use paradigm has come overwhelmingly to dominate fair use doctrine" in cases decided after 2005).

[194] *See id.* at 736-40 (charting the rise of the transformative use doctrine between 1994 and 2010).

[195] The House Report accompanying the passage of the 1976 Act explains: "there is no disposition to freeze the doctrine in the statute," and "the courts must be free to adapt the doctrine to particular situations on a case-by-case basis." H.R. REP. NO. 94-1476, at 66 (1976).

[196] *Campbell*, 510 U.S. at 584 ("Congress resisted attempts to narrow the ambit of this traditional enquiry by adopting categories of presumptively fair use, and it urged courts to preserve the breadth of their traditionally ample view of the universe of relevant evidence."); H.R. REP. NO. 90-83, at 32 (1967).

negligence.[197] But in copyright law, courts have treated fair use as an affirmative defense, to be established by the defendant after the prima facie case is made out.[198] Despite scholarly criticism, courts have held fast to this position.[199] If a defendant's negligence becomes part of the fair use inquiry, then the burden of proving the lack of negligence will naturally fall on the defendant. This may limit the extent to which the shield provided to non-negligent users in accident cases is effective in practice. Considerations of available information show, however, that in this context placing the burden on the defendant is not all bad and may even be desirable. In copyright accident cases, information about the precautions taken by the user and their cost is typically more readily available to the user. For example, a user is likely to have much better information on whether she searched the copyright office records or whether she tried to determine the legal status of the work and by what means. Cases in which an injurer is likely to have significantly superior information about his preventive behavior are exactly the ones in which tort law applies the rule of res ipsa loquitur. The rule creates a rebuttable presumption of negligence and thus places the burden on the injurer who is likely to have superior information.[200] The conventional understanding of fair use as placing the burden on the defendant operates in a similar manner. To the extent that one believes that users typically have significantly superior information about the question of their negligence, this placing of the burden on them may be desirable.

3. Proxy Rules for Negligence

A final option is not to adopt an open-ended negligence standard, but create a system of rules that would encourage both the owner and user to take care to avoid the infringement. Rather than provide for a judicial evaluation of the reasonableness of the user's precautions, Congress could precisely define circumstances in which owners and users ought to take care, as well as the type of care they ought to take and the negative consequences for failing to do so. For example, a rule that denies liability when the user copied from a copy with no notice would incentivize owners to attach notice. Such a rule existed in the

[197] *See supra* note 181; *see also* Richard A. Epstein, *Pleadings and Presumptions*, 40 U. CHI. L. REV. 556, 565 (1973) ("[N]egligence requires the plaintiff to show, prima facie, that the defendant owed him a duty of care, [and] that the defendant breached that duty . . . .").

[198] *Campbell*, 510 U.S. at 590 ("[F]air use is an affirmative defense . . . ."). *But see* Samuelson, *supra* note 188, at 2617 (arguing the issue is not yet fully resolved).

[199] *See, e.g.*, Hetcher, *Fault Liability Standard*, *supra* note 22, at 450-51; Lydia Pallas Loren, *Fair Use: An Affirmative Defense?*, 90 WASH. L. REV. 685 (2015); Samuelson, *supra* note 188, at 2617 ("[I]t would be appropriate for the burden of showing unfairness to be on the copyright owner.").

[200] *See* ARIEL PORAT & ALEX STEIN, TORT LIABILITY UNDER UNCERTAINTY 84-100 (2001).

Copyright Act in section 405(b) until the implementation of the Berne Convention in 1988.[201] The Copyright Act also adopts a similar rule in section 412, which, subject to certain exceptions, denies statutory damages for infringement commenced before the effective date of registration of the relevant work.[202] A variation of this approach could combine a rule with a background negligence standard.[203] For example, a general negligence standard may be accompanied by a rule mandating liability whenever the work was registered. This arrangement provides owners an incentive to register and users an incentive to check registration (as does a simple negligence standard), but it also makes it much cheaper for courts and parties to reach the right decision in cases where registration is the efficient means. In this way, copyright accidents are the same as all forms of accidental injury, which can be regulated through either rules, standards, or some combination of both.[204]

Implementing a negligence principle through proxy rules involves relative advantages and drawbacks familiar from the general literature on rules and

[201] Section 405(b) previously provided that "[a]ny person who innocently infringes a copyright, in reliance upon an authorized copy . . . from which the copyright notice has been omitted, incurs no liability for actual or statutory damages . . . ." Copyright Act of 1976, Pub. L. No. 94-553, § 405(b), 90 Stat. 2541, 2578 (codified as amended at 17 U.S.C. § 405(b) (2012)). The legal result in such cases is immunity from the most relevant forms of liability with attendant incentives similar to those created by a negligence standard. The provision was however modified only to apply to works distributed prior to 1988 by the Berne Convention Implementation Act, Pub. L. No. 100-568, § 7(e)(2), 102 Stat. 2853, 2858 (1988) (codified at 17 U.S.C. § 405 (2012)).

[202] *See* 17 U.S.C. § 412 (2012). However, it only imprecisely tracks a negligence standard because it does not negate liability but merely reduces damages.

[203] A rule could be combined with a negligence standard in two ways that are sometimes referred to as "sure shipwrecks" and "safe harbors." A sure shipwreck imposes liability whenever the specific conditions of the rule apply, leaving the possibility open for liability in other cases under a negligence standard. Susan C. Morse, *Safe Harbors, Sure Shipwrecks*, 49 U.C. DAVIS L. REV. 1384, 1392 (2016). A safe harbor prevents liability whenever its specific conditions apply. *Id.* at 1391. Sure shipwrecks and safe harbors typically have different effects on the regulated behavior. *See id.* at 1389. We do not further compare here effects of sure shipwrecks and safe harbors in our context because copyright accidents typically involve a bilateral model. Under such a model a copier's sure shipwreck is an owner's safe harbor and vice versa. For example, against a background of a negligence standard, a rule that imposes liability whenever notice is present is a sure shipwreck for the copier and a safe harbor for the owner. A rule that prevents liability whenever notice was absent is a safe harbor for the copier and a sure shipwreck for the owner. In such reciprocal situations the choice between the competing strategies is harder and often less important.

[204] *See generally* Colin S. Diver, *The Optimal Precision of Administrative Rules*, 93 YALE L.J. 65 (1983) (discussing the importance of regulatory precision in administrative rulemaking); Ehrlich & Posner, *supra* note 130 (comparing how a standard, a rule, or something in between affect negligence determinations); Kaplow, *supra* note 130 (analyzing the economics behind rules and standards).

standards.[205] The advantage of rules is that they are precise and simple to apply.[206] It is much easier for a court to analyze, for example, the simple questions of whether notice was attached or registration made than the complex balancing of interests required by a negligence standard. The simplicity in application reduces the cost and time of dispute resolution.[207] Furthermore, such rules typically reduce the burden on individual copyright owners and users. Their bright-line nature means that individuals can easily apply the rules to guide their behavior.[208] They also enable individuals to assess the outcomes of litigation better than standards, and thus reduce the number of cases that go to court.[209]

But the downsides to rules are also well documented. In particular, rules are less flexible than standards and, as a result, necessarily lead to both over- and under-inclusiveness.[210] Over-inclusiveness means that the rules sometimes capture cases that are not within their underlying rationale.[211] For example, a rule that imposes liability whenever notice was present would capture many accident cases where the copier was not negligent, including cases of plausible doubt about the owner's permission and cases of unknown copying by derivation from another work. Under-inclusiveness occurs when a rule fails to capture cases that *are* within its underlying rationale.[212] For example, § 412 fails to exempt copiers who were not negligent despite registration of the work, such as in cases involving a prohibitive cost to following an unrecorded chain of assignments or cases in which the user offered a well-publicized option to the owner to opt-out by objecting to a particular use.[213] Moreover the section is under-inclusive in its legal outcome. In some cases—specifically when the damage expected from an accidental infringement is minimal—exemption from statutory damages may suffice to give optimal incentives to the parties. But in other cases, non-negligent copiers who are shielded from statutory damages are still threatened by significant remedies such as disgorgement of profits, injunctions, and even compensatory damages where the actual harm is not trivial.[214] The result is a distortion of the incentives generated by the rule to both copier and owner relative to the negligence optimum.

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[205] *See* Kaplow, *supra* note 130, at 586-96 (analyzing the over- and under-inclusiveness of rules and standards); *see also* Ehrlich & Posner, *supra* note 130, at 275-77 (comparing the effectiveness of rules and standards at deterring behavior).

[206] *See, e.g.*, Kaplow, *supra* note 130, at 570, 591.

[207] *Id.* at 570.

[208] *Id.* at 569.

[209] *Id.*

[210] *Id.* at 586-95.

[211] *See id.*

[212] *See id.*

[213] *See* 17 U.S.C. § 412 (2012).

[214] *Id*. §§ 502-505.

Such over- and under-inclusiveness could be ameliorated by creating even more fine-grained rules, but doing so would be excessively costly in the context of copyright accidents.[215] The more diverse the context governed by the rules, the more expensive it becomes to create such a system (because lawmakers must think of all the situations in which the rules will apply and the best rules to apply in each case).[216] As a result, a standard that can be tailored by a court on a case-by-case basis is generally preferable in heterogeneous contexts.[217] Generally this is the case with accidental personal injury, of which Roscoe Pound once said, no two cases "have been alike or ever will be alike."[218] The circumstances of copyright accidents may not be as diverse as those of personal injury accidents, but they are heterogonous enough to make a standard preferable.[219] The range of works to which copyright attaches, the number of their possible uses, the variety of precautionary mechanisms available, and the extent to which the actors can invest in those precautionary mechanisms render crafting good rules ex ante a very costly endeavor.[220]

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[215] *See, e.g.*, Diver, *supra* note 204, at 73.

[216] *See* Kaplow, *supra* note 130, at 573 ("Even if they are extremely costly to apply, the significant likelihood that the particular application will never arise may make standards much cheaper.").

[217] Ehrlich & Posner, *supra* note 130, at 270 ("The problems of overinclusion and underinclusion are more serious the greater the heterogeneity (or ambiguity, or uncertainty) of the conduct intended to be affected."); Kaplow, *supra* note 130, at 581.

[218] ROSCOE POUND, AN INTRODUCTION TO THE PHILOSOPHY OF LAW 142 (1922); Kaplow, *supra* note 130, at 564 ("[T]he law of negligence applies to a wide array of complex accident scenarios, many of which are materially different from each other . . . .").

[219] This explains the high prevalence of standards in copyright on many fundamental issues. Authorship is defined by whether a work is "original." *See* Feist Publ'ns, Inc. v. Rural Tel. Serv. Co., 499 U.S. 340, 361 (1991). Improper appropriation is determined usually by the concept of "substantial similarity." *See* Sid & Marty Krofft Television Prods., Inc. v. McDonald's Corp., 562 F.2d 1157, 1164 (9th Cir. 1977), *superseded by statute on other grounds by* 17 U.S.C. § 504(b). Whether a use is non-infringing despite the existence of prima facie actionable copying depends most commonly on the fair use standard. *See* 17 U.S.C. § 107. Furthermore, as the digital age results in copyright governing even more heterogeneous conduct, numerous countries are entertaining the possibility of implementing more flexible legal standards. *See, e.g.*, IAN HARGREAVES, U.K. INTELLECTUAL PROP. OFFICE, DIGITAL OPPORTUNITY: A REVIEW OF INTELLECTUAL PROPERTY AND GROWTH 41-52 (2011), https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/32563/ipreview-finalreport.pdf [https://perma.cc/Z4J7-K2SS]; P. BERNT HUGENHOLTZ & MARTIN R.F. SENFTLEBEN, INSTITUUT VOOR INFORMATIERECHT, FAIR USE IN EUROPE. IN SEARCH OF FLEXIBILITIES (2011), http://www.ivir.nl/publicaties/download/912 [https://perma.cc/BSQ6-ZM6N].

[220] *But see* Thomas B. Nachbar, *Rules and Standards in Copyright*, 52 HOUS. L. REV. 583, 586-88 (2014) (discussing how the rules of compulsory licenses, damages-only regimes, and additional showings requirements would actually decrease the costs involved

Secondary considerations against implementing a negligence principle through rules are, again, pragmatic in nature. As mentioned, Congress is unlikely to make such legislative revisions to copyright, much less to promulgate an entire system of rules of the kind that would be necessary to plausibly cover the area of copyright accidents. Further reducing the slim chances of congressional intervention is an ostensible conflict with the prohibition in Article 5(2) of the Berne Convention on subjecting the enjoyment and exercise of copyright to formalities.[221] The precautions identified by many of the possible rules involve formalities such as notice or registration. Unlike formalities backed by the sanction of forfeiture of rights, rules that use formalities as proxies for determining liability in accident cases are not necessarily in violation of the Berne Convention's prohibition.[222] But the question is contentious enough to cause Congress to steer clear of any legislative measure of this kind.[223]

4. Taking Stock

Taking all of the aforementioned considerations into account, modifying the fair use doctrine emerges as the preferable alternative. This solution is not free from difficulties. The case-by-case application of negligence through fair use involves considerable administrative cost. The nature of fair use as a vague standard subjects individuals to often hard to predict ex post decisions by courts, with negative implications on both efficient planning ability and liberty.[224] And the discretionary and unpredictable character of the doctrine has an unfortunate built-in bias in favor of repeat well-financed players.[225] Despite these significant downsides, using fair use as the vehicle for implementing

in litigating infringement matters); Gideon Parchomovsky & Kevin A. Goldman, *Fair Use Harbors*, 93 VA. L. REV. 1483 (2007) (proposing more bright line rules in fair use law).

[221] Berne Convention for the Protection of Artistic and Literary Works art. 5(2), July 24, 1971, S. TREATY DOC. NO. 99-27 (1986).

[222] As Christopher Jon Sprigman explains, "[t]he view that article 5(2) of Berne creates a complete ban on formalities is deeply and honestly held," although in fact there is much more room to reinstate formalities than many have appreciated. *See* Christopher Jon Sprigman, *Berne's Vanishing Ban on Formalities*, 28 BERKELEY TECH. L.J. 1565, 1566-67 (2013) (explaining that Berne allows "new-style formalities," which "work mostly by contracting the scope of infringement *remedies* available to a rightsholder who has failed to provide the ownership information required to comply with the formality").

[223] *See, e.g.*, Jerry Brito & Bridget Dooling, *An Orphan Works Affirmative Defense to Copyright Infringement Actions*, 12 MICH. TELECOMM. & TECH. L. REV. 75, 91-101 (2005) (arguing that "new-style formalities" are incompatible with the Berne Convention); Edmund Sanders, *Copyright Legislation Unlikely, Both Sides Say*, L.A. TIMES (Feb. 5, 2003), http://articles.latimes.com/2003/feb/05/business/fi-copy5 [https://perma.cc/EBF2-DFGQ] (discussing political hurdles to copyright legislative reform).

[224] *See* HANOCH DAGAN, PROPERTY: VALUES AND INSTITUTIONS 148 (2011).

[225] *See id.*

negligence also has important advantages, ones that in our view tilt the balance in favor of this option. The case-by-case nature of a modified fair use standard allows for flexibility which is more suitable for the heterogeneous environment of copyright accidents, compared to rules that are plagued by over- and under-inclusiveness. Modifying fair use will also avoid the conceptual difficulties of the partial overlap between an independent negligence element and the existing fair use doctrine. Last but not least, courts incorporating negligence into the fair use analysis is a more realistic possibility than the congressional intervention required for the two other options.

In three respects the choice between a modified fair use standard and proxy negligence rules is not absolute. First, some rules can supplement and coexist with the modified fair use standard.[226] For example, a revived equivalent of § 405(b) could provide that under certain circumstances the absence of a copyright notice would prevent liability.[227] Under this arrangement a subset of the cases would enjoy the precision and low application cost benefits of rules, while an underlying negligence standard would partly compensate for the rules' over- and under-inclusiveness.[228] Second, statutory rules can play a facilitative role in constituting preventive measures without directly determining the legal implications attached to them.[229] Existing arrangements such as voluntary notice, registration, or recordation of transfers can decrease the cost of preventive measures and solve the associated coordination and collective action problems. The availability of these precautions would feed into the modified fair use analysis through courts' evaluation of the use or non-use by parties of these means in specific cases. Third, courts applying the modified fair use doctrine are likely to develop over time precedents and standard categories pertaining to the negligence analysis.[230] In doing so they will partially convert the negligence standard into a system of judicially crafted rules, leaving room for further common law growth.[231]

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[226] Some have already advocated for fair use to incorporate more supplemental and coexisting rules. *See* Parchomovsky & Goldman, *supra* note 220, at 1503; *see also* Michael W. Carroll, *Fixing Fair Use*, 85 N.C. L. REV. 1087, 1090 (2007) (arguing that fair use law can combine "standards with an advisory opinion mechanism that provides ex ante certainty in specific cases").

[227] *See* Morse, *supra* note 203, at 1429-30.

[228] *See id.* at 1420-24, 1429-30.

[229] When the Berne Convention Implementation Act eradicated mandatory formalities, Congress expected that a regime of voluntary formalities would continue to play a role in encouraging copyright holders to use formalities in order to reduce the chance of copyright accidents. *See* House Report on the Berne Convention Implementation Act of 1988, H.R. REP. NO. 100-609, at 45 (1988) ("[T]he legislation includes a new provision designed to stimulate voluntary notice by according evidentiary significance to its use.").

[230] Kaplow, *supra* note 130, at 577-79.

[231] *See* Morse, *supra* note 203, at 1392-94.

Having concluded that incorporating negligence into the fair use doctrine is the best option for implementing a negligence principle, we turn to explore more closely how such a modified fair use doctrine would work in practice.

B. *Modifying Fair Use*

To adequately implement a negligence principle, relatively modest modifications ought to be made to the fair use doctrine. In non-accident cases (when ex ante infringement is close to being a certainty) no modifications to the doctrine are required. Accident cases involving uses that are clearly fair even in non-accident circumstances likewise require no modification to the analysis. However, when a court determines that the defendant's action substantially involved only a risk of infringement and that the action would not be clearly fair if the case had been a non-accident case, the fair use doctrine must be modified to take into account elements of risk and optimal precautions. In these cases, the court must ask: Did the defendant take reasonable precautions to prevent the infringement? If the defendant failed to take a reasonable precautionary measure, then the use will be unfair. Alternatively, if she did take these precautions, i.e., she was not negligent, then the use will be fair. As Congress expects courts to assess the "purpose and character" of the defendant's use, the negligence analysis could formally fit under this fair use factor.[232] However, for analytic clarity, it is preferable if courts conceive of the extra negligence inquiry as a separate and additional factor as they are authorized to do.[233]

Whether a precaution is reasonable would be decided under the Hand Formula.[234] A use would be found fair as long as the defendant took all precautions whose marginal benefit in reducing the expected harm (*PL*) outweighed their cost (*B*). Obviously, courts are not expected to calculate exact dollar amounts as part of the negligence analysis. As in tort and standard fair use cases, the purpose of the analysis is to produce rough assessments of the costs and benefits of defendant's actions relative to reasonable alternatives.[235]

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[232] 17 U.S.C. § 107 (2012).

[233] *See* Campbell v. Acuff-Rose Music, Inc., 510 U.S. 569, 577 (1994) ("The text employs the terms 'including' and 'such as' in the preamble paragraph to indicate the 'illustrative and not limitative' function of the examples given . . . ." (quoting H.R. REP. NO. 94-1476, at 2 (1976))); New Era Publ'ns Int'l v. Henry Holt & Co., 873 F.2d 576, 588 (2d Cir. 1989) ("The Copyright Act itself lists four non-exclusive factors—I emphasize non-exclusive—to consider in this inquiry.").

[234] *See supra* note 70 and accompanying text.

[235] SHAVELL, *supra* note 5, at 19 (stating that when calculating negligence courts do not "think in terms of the mathematical goal of minimizing a sum . . . . Rather, they appear to gauge the appropriateness of behavior by a rough consideration of risk and the costs of reducing it, ordinarily on the basis of felt notions of fairness."); *see also* Northland Family Planning Clinic, Inc. v. Ctr. for Bio-Ethical Reform, 868 F. Supp. 2d 962, 982 (C.D. Cal. 2012) (observing that fair use is a "sort of rough justice").

The rough assessment of the standard fair use analysis compares the negative effect of the use on copyrighted works to the lost value of the use if subjected to permission of the copyright owner and possibly suppressed altogether. As applied to accident cases, this rough assessment will be modified to take account of salient features of the accident paradigm.

Considering negligence after the initial application of the four statutory factors provides some substantial information cost savings. At this stage of the analysis, the court has already ascertained the effect of the defendant's use on the market.[236] Thus, the *L* variable in the Hand formula is known. Courts need only discount this variable by the ex ante probability and focus on the *marginal* part of the harm that would be avoided by the precaution in order to calculate the *PL* variable. Furthermore, the first factor of the standard fair use analysis pertaining to "the purpose and character of the use" provides information on the cost of one important precaution available to users, i.e., forgoing the use altogether and its opportunity cost.[237] Courts typically consider under this factor elements such as the transformative nature of the use, the commercial nature of the use and whether the use produces broad social benefits.[238] These elements are the building blocks for assessing the value of the use, including broadly spread positive externalities, that would be lost if the use is avoided. Where the relevant precaution is not merely forgoing the use, for example where care involves search cost, the court will need to perform the necessary information gathering to assess the cost of this measure. Once the variables are ascertained, the formula must be applied to determine whether a precautionary measure was reasonable or not. In cases where there are multiple precautionary measures the defendant could take, the negligence analysis must be performed separately to determine the reasonableness of each.

C. *Applying the Modified Fair Use Analysis*

This final Section examines some cases where the modified fair use analysis may apply and make a difference. Ultimately, whether a particular defendant negligently infringed copyright is a case-specific determination dependent on empirical questions. We identify, however, some cases where the modified doctrine is likely to apply. Each of these cases represents a broader pattern of situations that give rise to important copyright policy questions. Each case demonstrates how a modified fair use analysis, informed by the copyright accidents paradigm, can solve or at least alleviate a significant policy difficulty afflicting existing copyright law. The three patterns of copyright accidents covered by the examples are: orphan works, copyright triangles, and reasonable opt-out options.

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[236] *See* 17 U.S.C. § 107.

[237] *See supra* notes 70-72 and accompanying text.

[238] *Supra* notes 119-23 and accompanying text.

1. The Orphan Works Project

In May 2011, the University of Michigan created the "Orphan Works Project" ("OWP").[239] The term "orphan works" refers to a work that is still in copyright, but whose copyright holder cannot be readily identified or located.[240] Orphan works present a major policy problem because the combination of a risk of copyright infringement with a prohibitive cost for clearing rights in such works causes them to lie fallow with neither the public nor the copyright owner enjoying their value.[241] Under the OWP, the university tried to digitize such works.[242] The project identified out-of-print works and tried to locate the copyright owner. To identify the owner, it first performed a search for any potential right holders, and then published a list of the suspected orphan works online. If no copyright owner came forward, then the work would be scanned and made available online in digital format. However, the project became the subject of copyright litigation and in 2012 it was suspended indefinitely.[243] Ultimately, no judicial decision was made on whether the project infringed copyright.[244]

Commentators have made a forceful argument that uses of orphan works such as the OWP constitute fair use, especially when undertaken by nonprofit libraries, archives, or educational institutions.[245] Arguably, the character of the use as involving broad social benefits, the very nature of the work as an orphan, and the small likelihood of adverse market impact when the work is not being commercially exploited makes a strong case for fair use.[246]

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[239] Authors Guild, Inc. v. Hathitrust, 755 F.3d 87, 92 (2d Cir. 2014).

[240] U.S. COPYRIGHT OFFICE, REPORT ON ORPHAN WORKS 1 (2006), http://copyright.gov/orphan/orphan-report-full.pdf [https://perma.cc/JL9Z-8MKU].

[241] *See generally* Christina M. Costanzo, *Have Orphan Works Found a Home in Class Action Settlements?*, 83 TEMP. L. REV. 569 (2011); David R. Hansen et al., *Solving the Orphan Works Problem for the United States*, 37 COLUM. J.L. & ARTS 1 (2013); Matthew Sag, *Orphan Works as Grist for the Data Mill*, 27 BERKELEY TECH. L.J. 1503 (2012); Jennifer M. Urban, *How Fair Use Can Help Solve the Orphan Works Problem*, 27 BERKELEY TECH. L.J. 1379 (2012); Robert Kirk Walker, *Negotiating the Unknown: A Compulsory Licensing Solution to the Orphan Works Problem*, 35 CARDOZO L. REV. 983 (2014).

[242] *Authors Guild*, 755 F.3d at 92.

[243] Joseph Lichterman, *'U' Halts Orphan Works Project in Light of Lawsuit*, MICH. DAILY (Sept. 19, 2011), https://www.michigandaily.com/news/u-halts-orphaned-work-project [https://perma.cc/8TBP-D3J5].

[244] *Authors Guild*, 755 F.3d at 105 (holding the infringement claims were not ripe).

[245] Hansen et al., *supra* note 241, at 23-24 ("[T]here is a strong argument that making orphan works available to the public for purposes such as teaching, scholarship and research would be fair use, especially when done by nonprofit libraries, archives and the like."); Urban, *supra* note 241.

[246] Hansen, *supra* note 241, at 24-25; Urban, *supra* note 241.

But the argument is not airtight. It is open to debate whether the works are transformative under the first fair use factor. Here, the university reproduced and displayed protected material verbatim and therefore the use does not seem to transform the content of the expression. The growing body of case law that recognizes the transformative nature of uses that copy entire works verbatim for innovative purposes such as digital searches and analysis[247]could perhaps be distinguished here. One may argue that the use is not transformative in purpose because the purpose behind the original distribution of the books (i.e., to entertain and inform through access to the books' content) and behind the OWP are ostensibly the same.[248] Many of the works were fictional and within the core of copyright under the second fair use factor.[249] Under the third factor the university is reproducing and displaying entire works verbatim.[250] And finally, one may say that although the works are out of print now, the use of the works in the OWP will affect the copyright holders' ability to put the works back on the market in the future.[251] Our point is not that the OWP or similar projects are necessarily not fair use, but rather that under the conventional doctrine the fair use case is far from completely secure.

Understanding the OWP under the accident paradigm substantially strengthens its fair use prospects. Given the status of the works as orphan, there is only a probability that a particular work is under copyright, that there exists an owner with viable interest in the work, and that such an owner objects to the use. The expected harm of the use, which is probably small to begin with,[252] has to be discounted to account for this. As the expected harm is small, the

[247] *See, e.g.*, *Authors Guild*, 755 F.3d at 101 (finding full-text searching of works to be fair); Perfect 10, Inc. v. Amazon.com, Inc., 508 F.3d 1146, 1168 (9th Cir. 2007) (finding display of thumbnail images of copyright owner's photographs was fair use); Authors Guild, Inc. v. Google Inc., 954 F. Supp. 2d 282, 289 (S.D.N.Y. 2013) (finding as fair the digital reproduction of millions of copyrighted books and display of "snippets to the public"), *aff'd*, 804 F.3d 202 (2d Cir. 2015), *cert. denied* 84 U.S.L.W. 3357 (2016).

[248] *See* Michael D. Murray, *What Is Transformative? An Explanatory Synthesis of the Convergence of Transformation and Predominant Purpose in Copyright Fair Use Law*, 11 CHI.-KENT J. INTELL. PROP. L. 260, 261 (2012) (arguing that "a change in the predominant purpose of the work" is necessary to pass the "transformative test").

[249] *See* Stewart v. Abend, 495 U.S. 207, 237 (1990) ("In general, fair use is more likely to be found in factual works than in fictional works."); *see also* Campbell v. Acuff-Rose Music, Inc., 510 U.S. 569, 586 (1994) ("This factor calls for recognition that some works are closer to the core of intended copyright protection than others . . . ."). More creative works are favored under this factor. *See* Leadsinger, Inc. v. BMG Music Publ'g, 512 F.3d 522, 531 (9th Cir. 2008).

[250] *See* Cambridge Univ. Press. v. Becker, 863 F. Supp. 2d 1190, 1227-35 (N.D. Ga. 2012), *rev'd sub nom.* Cambridge Univ. Press v. Patton, 769 F.3d 1232 (11th Cir. 2014).

[251] This would cut against finding fair use under the fourth factor. *See* 17 U.S.C. § 107 (2012).

[252] *See, e.g.*, Urban, *supra* note 241, at 1407.

potential precautionary measure of forgoing the use appears to fail the Hand formula. The opportunity cost associated with forgoing this socially valuable project would seem to outweigh any small expected harm to the copyright owners.[253] What about other available precautions? To the extent that the cost of such precautions is modest, they may be justified even by the small marginal harm they will be avoiding in this context. The university, however, took exactly such precautions in the form of publishing a list of the works it intended to use and a basic search for their owners.[254] As a result it was likely not negligent, and the use should be found fair.

On a broader level, applying the accident framework to the OWP case brings into sharper focus the arguments made by commentators who promote fair use as a solution for the orphan works problem. The modified fair use analysis based on a negligence principle reinforces the argument already made that fair use is a partial solution for the troubling problem of orphan works.[255] But, even more fundamentally, introducing this issue into the accident paradigm allows us to see clearly why many unauthorized uses of such works should be allowed and under what conditions. Understood within the accident framework, taking such precautions is not a secondary step that users of orphan works can take to demonstrate good faith and increase the chances of their fair use defense as some commentators suggest.[256] Rather, taking precautions is the heart of the negligence analysis and a normatively attractive way to determine who ought to bear the burden of unintended harm in such cases.

The orphan works example also demonstrates how a modified fair use doctrine generates optimal preventive incentives to both owners and users. Under this rule, users like the University of Michigan have an incentive to take cost effective precautions such as search and notification. This is true under strict liability as well.[257] The difference is that under the negligence standard embodied in the modified fair use analysis owners too would have incentives to take precautions. Copyright owners who retain interest in their ostensibly

[253] *See id.* at 1388.

[254] Authors Guild, Inc. v. Hathitrust, 755 F.3d 87, 92 (2d Cir. 2014).

[255] *See, e.g.*, Urban, *supra* note 241 (arguing that fair use is a "partial solution" to the orphan works problem); *see also supra* note 241 and accompanying text.

[256] *See, e.g.*, Urban, *supra* note 241, at 1425-27 (discussing "seven ways libraries and archives could strengthen the fair use arguments for digitizing orphans and making them available to patrons").

[257] The University of Michigan stated that they suspended the project after scrutiny "revealed a number of errors" and that once these are fixed, the project will be resumed. *See* Jason Bogg, *University of Michigan Library Delays Sharing of Orphan Works*, ADWEEK (Sept. 11, 2011, 3:23 PM), http://www.adweek.com/galleycat/university-of-michigan-library-delays-sharing-of-orphan-works/39397 [https://perma.cc/D9Z6-6WMF]. However, the project has not yet resumed, and it is an open question as to why. The most likely answer is the threat of supra-competitive statutory damages distorts their incentives that would be efficient under a strict liability rule plus compensatory damages.

orphan works would not be able to sit idle, simply relying on the threat of strict liability for statutory damages to deter potential users. Instead, such owners would have incentive to invest in cost-effective means for preventing accidental infringement of their works, including recordation of transfers, responding to public announcements by users, or even revival of the work's exploitation.

2. *De Acosta v. Brown* and Copyright Triangles

De Acosta v. Brown[258] is one of the most prominent cases establishing the strict liability nature of copyright infringement.[259] De Acosta wrote a screen play based on the life of Clara Barton, the founder of the American Red Cross. In the screenplay, she created a fictitious romance between Barton and another character. In 1941, Beth Brown wrote a biography of Barton in which she copied parts of De Acosta's screenplay. Brown then contracted with Hearst Magazines to publish extracts from the forthcoming book. De Acosta successfully sued both Brown and Hearst Magazines for infringement.[260] Hearst was found to have infringed innocently; it had neither knowledge of Brown's copying nor any reason to know. Yet, under copyright's strict liability rule, Hearst was just as liable as Brown.[261]

On this point, Judge Hand dissented.[262] Accepting copyright's strict liability in general, he argued that a different rule should apply when a person unwittingly copies from an intermediary source with no awareness that the source contains copied expression.[263] Particularly, he expressed concern that requiring publishers to internalize the owner's harm would be "an appreciable incubus upon the freedom of the press" and a "not negligible depressant upon the dissemination of knowledge."[264] He concluded that Hearst should not be liable in the absence of some reason to believe the underlying work was copied.[265]

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[258] 146 F.2d 408 (2d Cir. 1944), *cert denied*, 325 U.S. 862 (1945).

[259] *See id.*; *see also* Sinclair, *supra* note 11, at 948-49 ("The rule of strict liability was firmly implanted by the *De Acosta* case and its progenitors . . . .").

[260] *De Acosta*, 146 F.2d at 409-10.

[261] *See id.* at 410-11.

[262] *Id.* at 412.

[263] *Id.* at 413 ("I can see no reason why the ordinary rule of liability for torts should not apply to copying a copy; and I see very strong reasons why it should . . . ."). Judge Hand had also suggested this should be the proper rule in a previous case. *See* Barry v. Hughes, 103 F.2d 427, 427 (2d Cir. 1939) ("[O]ne who copies from a plagiarist is himself necessarily a plagiarist, however innocent he may be . . . , but that would be a harsh result, and contrary to the general doctrine of torts." (citation omitted)).

[264] *De Acosta*, 146 F.2d at 413.

[265] *Id.* at 414. Judge Hand analogized this situation to a case in which one carries away his own bag with no reason to know the bag contains another person's watch. While

The facts of *De Acosta* are illustrative of a common kind of accidental infringement in which a defendant copies the owner's work by deriving it from a third party.[266] As in *De Acosta*, the defendant may not be aware of copying the original at all. Alternatively, the defendant may be aware of copying the original but erroneously believe a third party's representation as to the legal status of the work or as to his rights to authorize the relevant use. Such cases form the classic problem of a legal triangle.[267] In such a triangle the liability of the party directly at fault, who caused the legal accident, is not part of the direct substantive legal question between the plaintiff and the defendant.[268] The law has to decide on whom the harm will fall as between two innocents. In the copyright version of this triangle, those two innocents are the owner and the defendant who unwittingly copied by derivation from the third party. *De Acosta* is a private case of a copyright triangle consisting of a publisher, an author and a copyright owner. While the author is the party at fault, the owner and the publishers are both innocents.

While existing copyright law ignores such legal triangles, a modified fair use doctrine would take them into account and lead to substantially different results. The issue of fair use was not considered in *De Acosta*, but it most likely would not have saved Hearst.[269] The outcome would be different, however, under our proposed modified fair use. The harm caused to Brown, once discounted by the ex ante probability, is small and accordingly there were few, if any, reasonable precautions available to Hearst. The magazine could have required assurances from Brown that her work did not contain infringing

conversion is a strict liability tort, he explained, it does not cover cases where the defendant is not aware of the very physical act that gives rise to it. *Id.* at 413.

[266] For other examples in this pattern, see *Walco Products, Inc. v. Kittay & Blitz, Inc.*, 354 F. Supp. 121, 124 (S.D.N.Y. 1972) and *Leigh v. Barnhart*, 96 F. Supp. 194, 194-95 (D.N.J. 1951) (finding defendant reproduced artwork found in a magazine with consent of magazine publisher but without authorization of artwork owner and without notice of the latter's copyright).

[267] Menachem Mautner, *"The Eternal Triangles of the Law,"* 90 MICH. L. REV. 95 (1991).

[268] Although, of course, as in *De Acosta*, he may be a joint defendant and be found jointly liable for the harm. 146 F.2d at 408.

[269] The copying was commercial in nature and of questionable transformativeness. The copying covered substantially important parts of the copyrighted text, including the fictitious love interest. *Id.* at 410. The underlying work was unpublished, *id.* at 409, and the Supreme Court has noted how fair use is narrower in relation to unpublished works, *see* Harper & Row Publishers, Inc. v. Nation Enters., 471 U.S. 539, 553 (1985). It is unclear how Hearst's use affected the market but there is the possibility that it deprived the owner of reasonable license fees. *See* Am. Geophysical Union v. Texaco Inc., 60 F.3d 913, 931 (2d Cir. 1994). Once again, it is wholly plausible that fair use would apply in these circumstances, but it is far from certain.

material.[270] However, the ease of Brown providing false assurances makes this precaution likely only to avert a very small *marginal* part of the harm. The cost of the assurances—especially ones exacting enough to reduce the chance of falsehoods—would seem, therefore, not justified under the Hand formula. Alternatively, Hearst could have performed an independent search. But because the work was unpublished and not registered with the copyright office,[271] any search would likely impose substantial cost in order to reveal very little information, thus averting only a small margin of expected harm.[272] Therefore, under the modified fair use doctrine, Hearst would probably not be liable as there were likely no reasonable precautionary measures available to it.

The broader insight arising from this example is how a modified fair use doctrine could help deal with the difficult question of copyright legal triangles in general, and in the specific context of a publisher/author/owner relationship in particular. Copyright's existing strict liability simply places the harm on the innocent user, thereby giving no precautionary incentive to the innocent owner. By contrast, a negligence standard provides a coherent guide on how to allocate the unintended harm between the two equally innocent parties in the triangle, thereby incentivizing both to take optimal precautions. The publisher/author/owner triangle is an instance of this pattern. Requiring the publisher to internalize the entirety of the owner's harm is, as Judge Hand intimated, a costly depressant on the publisher's otherwise socially beneficial activities. By requiring the publisher only to take reasonable precautions, we incentivize both owners and publishers to take cost-justified measures to reduce the overall social cost of the accident without placing an undue burden on the "freedom of the press."

3. *Field v. Google Inc.* and Opt-Out

In *Field v. Google Inc.*,[273] a district court held that the reproduction and distribution of copyrighted works through Google's cache did not infringe copyright.[274] A cache copy is a copy of the HTML code of a website produced by Google and stored on its systems as part of the indexing process necessary

[270] Hearst apparently did receive some assurances. *See De Acosta*, 146 F.2d at 412 ("Brown the infringer assured the Cosmopolitan editor of the research that she had done on the matter . . . .").

[271] *Id.* at 409.

[272] The work was registered at the office of the Screen Writers Guild in Hollywood. *Id.* at 409. However, without knowing more about the underlying work, Hearst would have no obvious reason to search this record. Searching this record would likely only occur if the company adopted a broad policy of searching it (and presumably other similar records) every time it wished to print expressive material. This would again be prohibitively expensive in relation to the marginal cost savings.

[273] 412 F. Supp. 2d 1106 (D. Nev. 2006).

[274] *Id.* at 1109.

for its search engine.[275] Google offers users access to these cached webpages. Field "decided to manufacture a claim for copyright infringement against Google in the hopes of making money from Google's standard practice."[276] Field was aware of Google's caching practice and that he could easily opt-out from it by placing in his website's code a "no-archive" meta-tag. This meta-tag was recognized by Google and widely known in the industry as signaling a preference not to be cached. Field placed his works on his website and set the permissions in a standard file called "robots.txt" to signal that he wanted his website to be crawled and indexed by search engines.[277]

Once, as predicted, his website was cached, he sued for $2,550,000 in statutory damages despite Google's disabling of the cache access to his webpage as soon as it learned of his claim.[278] These circumstances did not make Field a sympathy-inducing plaintiff. They also gave the court plenty of legal grounds for rejecting the claim, including implied license,[279] estoppel[280] and fair use.[281]

The significance of the case thus lies not in its specific facts, but in the general pattern of defendant's use of the copyrighted work and in the court's application of fair use to this pattern. The general pattern represented by *Field* is accidental infringement accompanied by the reasonable precaution of making an opt-out option available.[282] Because many website owners were happy to have their copyrighted content cached,[283] Google was only aware of a probability of infringing the copyright of some owners opposed to such use of their works.[284] To avert the risk of such accidental infringement, Google took the most efficient precaution available. Instead of employing the impracticable and costly means of affirmatively obtaining permission from the millions of owners of all cached websites, it allowed owners to signal their objection. This was done through the cheap, standardized, and well-known technological

[275] *Id.* at 1111.

[276] *Id.* at 1113.

[277] *Id.* at 1114.

[278] *Id.* at 1110, 1114.

[279] *Id.* at 1115-16 (finding for Google on this defense).

[280] *Id.* at 1116-17 (same).

[281] *Id.* at 1117-23 (same).

[282] *See* Bracha, *supra* note 47, at 1801-02, 1817-49.

[283] *Field*, 412 F. Supp. 2d at 1122 ("[T]he owners of *literally billions* of Web pages choose to permit such links to be displayed." (emphasis added)).

[284] *See generally* Miquel Peguera, *When the Cached Link Is the Weakest Link: Search Engine Caches Under the Digital Millennium Copyright Act*, 56 J. COPYRIGHT SOC'Y U.S.A. 589, 594-609 (2009); David M. Ray, Note, *The Copyright Implications of Web Archiving and Caching*, 14 SYRACUSE SCI. & TECH. L. REP. 1 (2006), http://jost.syr.edu/wp-content/uploads/the-copyright-implications-of-web-archiving-and-caching.pdf [https://perma.cc/9MQZ-UFE7].

means of adding a "no archiving" meta-tag. Thus, when *Field* is viewed as an accident case, it is easy to conclude that Google was not negligent.

Other cases within this general pattern pose more complex issues than *Field*. Mass digitization projects are a case in point.[285] One example of such a project is the Library of Congress's American Memory project, designed to preserve and make accessible a wealth of historical materials.[286] Another is Google Books, which involves the digital reproduction of millions of printed texts in order to render them searchable on the Internet without displaying substantial portions of the text to users.[287] Two features of such projects are particularly salient for their analysis as copyright accidents. The first is the substantial, often prohibitive cost associated with trying to ascertain the legal status of the works reproduced.[288] This feature overlaps with the problem of orphan works discussed above.[289] The second feature is the fact that, like in *Field*, in many contexts the user can plausibly assume that a substantial number of copyright owners would not object to the use and that ascertaining the preferences of specific owners may be costly.[290] In such circumstances, often the most appropriate means of avoiding the copyright accident is creating an efficient opt-out option that allows owners to easily step forward and announce their objection.[291] *Field* is an obvious case of this kind. But the same is arguably true in more tricky cases of mass digitization. As the district court found the Google Books mass digitization to be fair per se, the opt-out options provided by Google played no explicit role in the fair use analysis.[292] However, there is no guarantee that other courts would similarly find such use to be fair use per se, especially if the defendant engages in more intensive use of the work than Google, such as substantial display or dissemination.[293] In such cases, the accident features must be taken into account through the modified fair use analysis. When this is accomplished, whether the defendant provided an opt-out option may be the dividing line between infringement and fair use.

Finally, and most interestingly, the reasoning in *Field* is a conspicuous example of a court using in an accident case reasoning very close to the

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[285] *See* Bracha, *supra* note 47, at 1803.

[286] *See generally About American Memory: Mission and History*, LIBR. CONGRESS, http://memory.loc.gov/ammem/about/index.html [https://perma.cc/G8MM-LXJM].

[287] Authors Guild, Inc. v. Google Inc., 954 F. Supp. 2d 282, 286-87 (S.D.N.Y. 2013), *aff'd*, 804 F.3d 202 (2d Cir. 2015), *cert. denied* 84 U.S.L.W. 3357 (2016).

[288] *See* Bracha, *supra* note 47, at 1803.

[289] *See supra* note 241 and accompanying text.

[290] *See* Bracha, *supra* note 47, at 1803.

[291] *See id.*

[292] *Authors Guild*, 954 F. Supp. 2d at 282.

[293] *See* Peguera, *supra* note 284, at 628 ("*Field v. Google* might not provide reliable guidance for future claims on the issue of the underlying liability of a search engine's cache.").

modified fair use analysis we propose. The court's opinion found Google's use to be highly transformative, a finding that strongly militates in favor of fair use.[294] One of the reasons it gave for this finding was the easy and accessible opt-out option supplied by Google that, according to the court gave the ultimate decision of "whether 'Cached' links will appear" to the owners.[295] Even more striking is the fact that the court added an additional factor to the traditional four-factor analysis. Nominally this fifth factor considered the user's good faith.[296] The essence of the good faith the court imputed to Google, however, was making available to copyright owners an easy and accessible means for opting out, and honoring the owners' wishes once they were signaled through this means.[297] The simple translation of this reasoning is that the fact that Google employed a cost effective precaution to prevent what was clearly a copyright accident cut heavily in favor of fair use.

The reasoning in *Field* shows that in accident cases where an opt-out option was provided, at least one court has employed a rough variant of the modified fair use doctrine we propose. Indeed, one may suspect that in *Author's Guild* the fact that Google offered an easy opt-out option from the Google Books project played some role in helping the court reach its fair use conclusion, although there is no trace of that in the opinion itself.[298] Thus some courts already implement a half-articulated version of the modified fair use doctrine appropriate for copyright accidents. They would do well to shift to a conscious, better articulated, and more coherent application of this modified doctrine to deal with copyright accidents.

CONCLUSION

Copyright accidents are ubiquitous and significant. Copyright needs a doctrinal and conceptual mechanism to address them. But currently it has none. A myriad of legitimate and beneficial activities create a risk of copyright infringement. Users frequently encounter situations where uncertainty regarding the work's legal status, ownership, and restrictions increases

[294] Field v. Google Inc., 412 F. Supp. 2d 1106, 1118-19, 1123 (D. Nev. 2006).

[295] *Id.* at 1119, 1122-23.

[296] *Id.* at 1122-23.

[297] *Id.* at 1122 (finding that "Google does not provide 'Cached' links to any page if the owner of that page does not want them to appear").

[298] Authors Guild, Inc. v. Google Inc., 954 F. Supp. 2d 282, 282 (S.D.N.Y. 2013), *aff'd*, 804 F.3d 202 (2d Cir. 2015), 84 U.S.L.W. 3357 (2016). Some argue that opt-out should have mattered in this case and similar fair use litigation. *See* Bracha, *supra* note 47, at 1855-61; Nari Na, Note, *Testing the Boundaries of Copyright Protection: The Google Books Library Project and the Fair Use Doctrine*, 16 CORNELL J.L. & PUB. POL'Y 417, 439 (2007); *see also* Jonathan Band, *The Google Library Project: The Copyright Debate*, CYBERSPACE LAW., March 2006, at 1 (finding "the cost of owners opting out is much less" than the cost for Google to seek permission).

transaction costs to the point that voluntary market bargaining for eliminating or allocating this risk is impossible. In such cases, copyright simply falls back on its entrenched principle of strict liability and places the entire risk on the shoulders of the user. Unfortunately this rule is neither efficient nor in line with the principle of equitable distribution of cultural risk. A negligence rule is superior in creating incentives to optimally invest in preventing copyright accidents not just to the user, but to both user and copyright owner. Negligence also reduces the risk associated with creation, thereby distributing opportunities for cultural participation more broadly and evenly. Given these desirable consequences, this Article proposes that, in cases of copyright accidents, copyright law adopt a negligence rule. Such a rule could be implemented through simple modifications to the fair use doctrine. More generally, the framework of copyright accidents sheds new light on many troubling copyright problems such as orphan works, opt-out options, and copyright triangles. In all of these contexts as well as others still waiting to be explored, copyright, like the common law more broadly, should only hold individuals liable for accidents when they failed to act with reasonable care for others.

Long ago, Justice Oliver Wendell Holmes, Jr., observed that when an "action cannot be avoided, and tends to the public good, there is obviously no policy in throwing the hazard of what is at once desirable and inevitable upon the actor."[299] Surprisingly perhaps, in the context of modern, ever-present copyright, these words ring truer than ever.

[299] HOLMES, *supra* note 9, at 95.